

Modern



Customer Education
 West Coast, East and South
 Printing with Technology
 Printing Week Planning
 The History of the
 Color for Profit Campaign

JAN 1961

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LITHOGRAPHY

.....



INTERNATIONAL
 Printing Week
 JANUARY 15-21, 1961

THE
 SUCCESS IN PRINTING

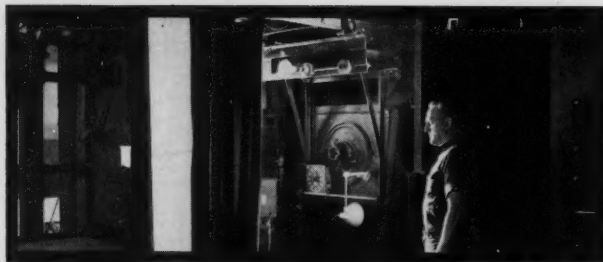
objectives

- 1. To make an industry which produces the most diverse, sophisticated work in the entire economic order of mankind
- 2. To promote the principles and the practical use of scientific methods
- 3. To make the world accessible for all ages and generations that ensure the coming nations of today
- 4. To encourage every effort to change in the industry
- 5. To encourage every effort to change in the industry
- 6. To encourage every effort to change in the industry

Sponsored by
 INTERNATIONAL ASSOCIATION of PRINTING HOUSE CRAFTSMEN
 and numerous Graphic Arts organizations

**Cameraman
Ed Bines**

because it "cuts down annoying time wasting make-overs! Its ability to hold the finest line and screen dot is remarkable."



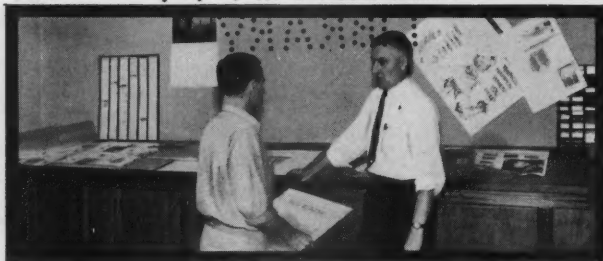
**Dot Etcher
Jim Woodruff**

because "its thin coating gives extremely sharp reproduction of half-tones. Uniformly dense dots, unsurpassed for dot-etching!"



**Stripper
Bill Ward, Sr.**

because "this base Litholine makes it easier to strip up, fine and halftone... especially putting negatives... or when super-imposing film on film."



**Shop Foreman
Al Steitz**

because "at every step, from camera to press, the uniformly high quality of Litholine saves us hours of work, has been a vital factor in speeding up production."

Because Quality Counts at Every Stage...

Empire Color Lithographers Prefer GEVAERT



The Customer...

who appreciates Gevaert's contribution to his high quality end result.

Gevaert Litholine, available in a wide range of coatings and base materials, is the highest-contrast Litho emulsion on the market. Product of world-famed GEVAERT, makers of high-quality sensitized materials for over 65 years, Litholine assures consistently sharp screen dots and high resolution separation of fine lines. Its extremely high density half-tone reproduction is excellent for dot-etching.

Write for free samples of Gevaert Litholine today:

THE GEVAERT COMPANY OF AMERICA, INC.

321 West 54th Street, New York 19, N. Y.

District Offices: Lincolnwood, Ill. (Chicago) • Los Angeles • Dallas • Denver • San Francisco

Litholine Ortho O 84p — maximum contrast, highest sensitivity, latitude, resolution. Heavy .010" polystyrene base.

Litholine Ortho O 81 — thin .003" base for line or screen positives and negatives.

Litholine Ortho O 82 — same emulsion, regular .006" base.

Panchromatic P 24p — a fast pan emulsion, with long gradation, wide latitude in exposure and development. Ideal for color separation work, on .010" polystyrene base.



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&
PORTER**
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products
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new
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IN THE R & P LINE OF FINE CHEMICALS FOR THE GRAPHIC ARTS

You see in this family portrait old R & P favorites in new dress — they're new in formula and efficiency, too! And you see three brand new R & P graphic arts chemicals that come to you in the new R & P 16-ounce GIANT aerosol cans.

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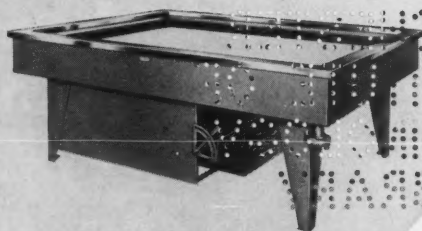
R & P

8-29-61 Sunday



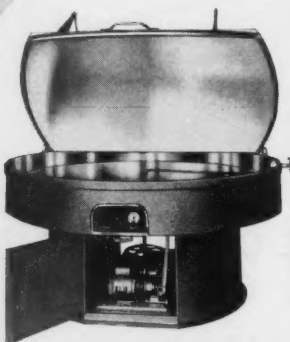
"Champion" EQUIPMENT FOR THE PHOTOENGRAVER AND LITHOGRAPHER

"Champion"
**DOWN DRAFT
LITHOGRAPHERS
WORK-TABLE**
with variable
exhaust controller



Removes hazardous fumes—at their source. No odor in shop or offices. Tables at convenient working height. Quiet operating exhaust blower. The Koroseal lined trough resists corrosion from chemicals used.

"Champion"
**PLATE
WHIRLER**
for Lithographers



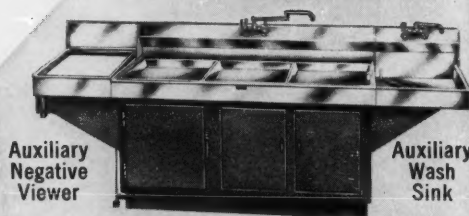
by ball bearings. All instruments for manual or automatic operation are in recessed panel. Plate whirling speed is controlled by a convenient lever at from 35 to 105 R.P.M.

"Champion"
**FACE-UP WHIRLERS
for Photoengravers**

Radiant electric heat on underside of cover reflects on top of revolving plate. Heating, drying and whirling controlled by electric switches for manual operation or automatic presetting.



"Champion"
**TEMPERATURE
CONTROLLED
DEVELOPING SINK**



Auxiliary
Negative
Viewer

Auxiliary
Wash
Sink

Temperature maintained to a fraction of a degree. The auxiliary negative viewer and auxiliary wash sink are optional units ... can be designed for either side of basic sink. The three tray, basic sink can be ordered with, or without, either feature.

Cover is of aluminum with flat underside—thus eliminating an area for dirt to gather. It is easily cleaned. Stainless steel disposal trough. The plate platform is heavy circular aluminum plate, supported

manufactured by **H. SCHMIDT & CO.**

ESTABLISHED 1891

321 S. Paulina St., Chicago 12, Ill.

SEeley 3-0404

- ▶ Transparency Viewers
- ▶ Stainless Steel Sinks to Order
- ▶ Stainless Steel Developing Trays
- ▶ Plate Coolers
- ▶ Plate Cleaning Tables

- ▶ Powdering Cabinets
- ▶ Cold Top Developing Tanks
- ▶ Lithographers Plate-Soaking and Developing Sinks
- ▶ Layout Tables

**CONTACT YOUR
LOCAL DEALER FOR
ADDITIONAL DETAILS**



Cover

Another *Printing Week* . . . and another chance to run the picture of a pretty girl on our cover, this time TV star Connie Stevens. For details of some of the *PW* activities around the country, turn to page 39.

WAYNE E. DORLAND
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MODERN LITHOGRAPHY

VOLUME 29, NUMBER 1

JANUARY, 1961

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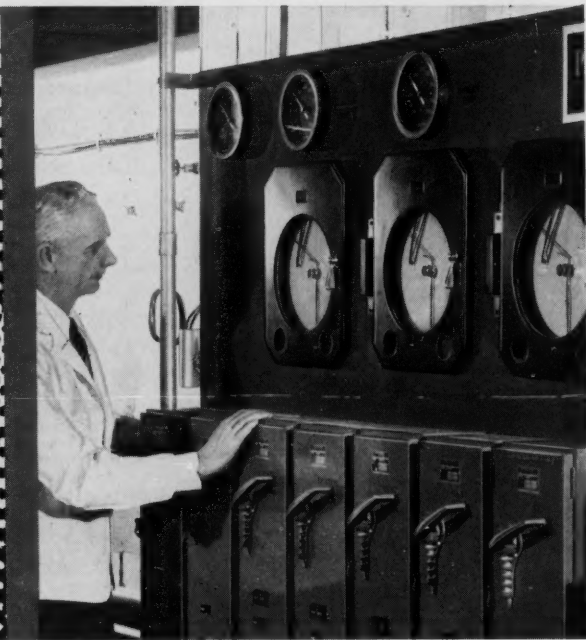
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NEW KIND OF SUR GIVES FINER RE

Goodyear's exclusive "micro-texturizing" curing process

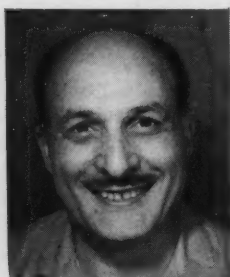


1 FINER REPRODUCTION.

New kind of smoothness and lack of tack give you clean, sharply defined and perfectly formed dots—no slurs or tails as you can see.

2 UNIFORM GAUGE.

Electronically controlled process gives you uniform thickness, perfect face/body balance. Absence of low spots shortens make-ready.



5 SATISFIED USERS like Frank LaCorte, Press Superintendent, Tri-Arts Press, Inc., N. Y. Mr. LaCorte says: "Sharpest dots I've seen in years!"

"Put me down as sold on the HI-FI Blanket. I run it on all kinds of jobs, all kinds of stock—from tissue to rough antique—and I get excellent reproduc-

tion every time. Dots show up clear and sharp, with no blurs or smudged edges. In fact, I can run at lower printing pressure with HI-FI and still get those perfectly formed dots.

"It has one of the smoothest finishes I've seen. And I'm just as impressed with the resiliency and fine ink acceptance."

Wrap up your reproduction problems in

hi-fi by
OFFSET BLANKETS

GOO

FACE ON HI-FI BLANKETS PRODUCTION—LONGER

"tempers" rubber body and face to give you these results:



3 BETTER SMASH-RESISTANCE.
Excellent resilience reduces smash effect. HI-FI snaps back fast after each impression for long mileage, more sharp impressions per dollar.

4 LOWER OPERATING COSTS.
Uniform gauge, lower printing pressure with no loss of dot clarity, top smash-resistance, faster make-ready—they all add up to real economy.

You, too, can get maximum fidelity on every impression, run after run, with HI-FI Offset Blankets by Goodyear. And you'll get it for no more than conventional blankets cost. HI-FI comes in red, green, blue-gray, black. There's more to the HI-FI story—find out by phoning your Goodyear distributor or by writing Goodyear, Printers Supplies Sales Department, New Bedford, Mass. Don't forget—lots of good things come from Goodyear.

GOODYEAR

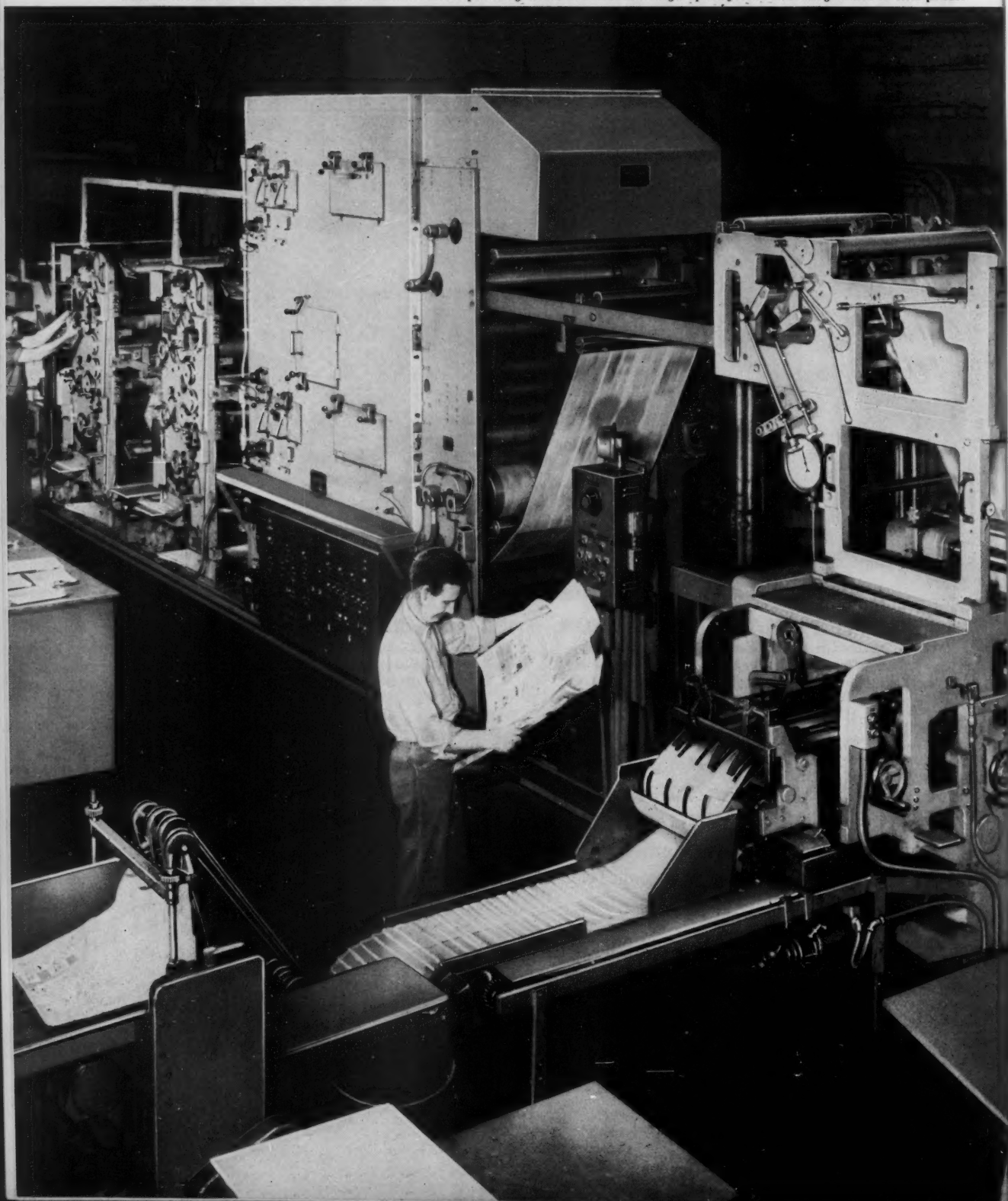
PRINTERS SUPPLIES

MODERN LITHOGRAPHY, January, 1961

HI-FI—T.M. The Goodyear Tire & Rubber Company, Akron, Ohio


Danner Press of Canton


This is the new 22½ x 35" ATF Press at Danner. Two printing units and a second high-speed folder are being added to this press.





speeds production with ATF Web Offset Publication Presses

Millions of copies of periodicals are printed, bound, addressed and mailed every month by this 275-man Ohio plant. All their presses are web-fed. At key spots in the Danner operation are two 22 $\frac{3}{4}$ x 35" ATF Offset Publication Presses.

The older of the two— a four-unit web-fed press—was purchased in 1948; and, according to Danner, "it is the real workhorse of our plant." This ATF press has unusual versatility. It has an ATF magazine folder at each end of the press and each printing unit can be fed with a roll of paper from the side. A roll can thus be run through just one printing unit, or two, three or four as per number of colors required, or additional rolls can be run to increase the number of signature pages.

 A new two-unit 22 $\frac{3}{4}$ x 35" ATF Publication Press was installed in January 1959. It handles most jobs at a net production of 18,000 signatures per hour; however, Charles Cheviron, Pressroom Superintendent, reports: "It runs very satisfactorily at higher speeds, too." This press is equipped with ATF's new High-Speed Folder and a packer which speeds the handling of the printed and folded product.

These ATF   Presses are helping Danner print several dozen magazines, catalogs, children's books, booklets and many other types of work. An indication of the volume: an employee of the post office is stationed permanently at the plant to process mailings, and two carloads of paper are unloaded daily at their siding.

Find out how ATF Publication Presses can help you boost your volume of production—and profits.

Write for illustrated brochure.



AMERICAN TYPE FOUNDERS

200 Elmora Avenue, Elizabeth, N. J.

MODERN LITHOGRAPHY, January, 1961

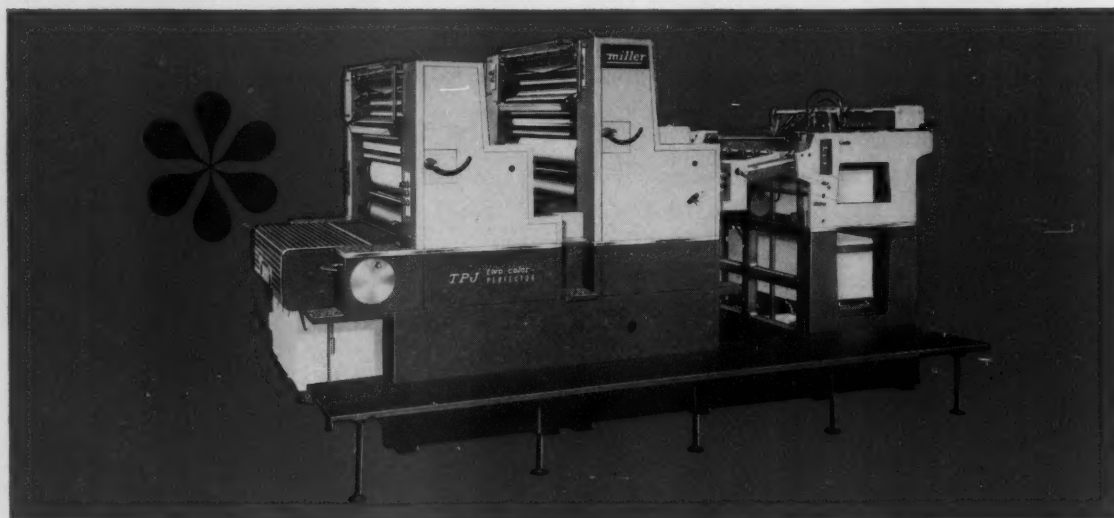
8 1/2 X 11

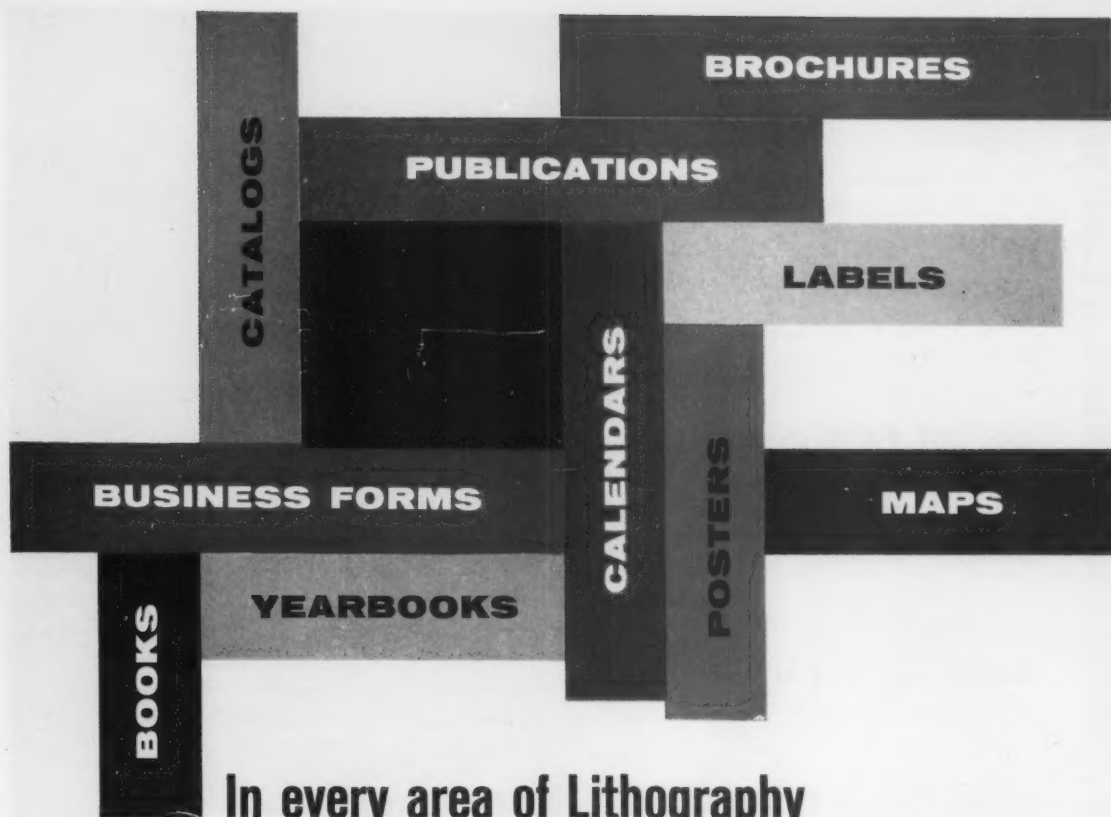
The popular size...and the press* to produce it best!

A page size of 8½ x 11 is indeed the most popular being produced today. By far the bulk of the work is being printed in this most mailable, fileable, *retainable* size. The Miller TPJ 23 x 36 Two Color-Perfector Offset Press is ideally suited for this size and its multiples. Set as a two color, it is an economical press for multicolor work with sufficient capacity for bleeds. As a perfecting press, it quickly, efficiently produces single-color backed-up work of exceptionally fine quality . . . a sixteen-page 8½ x 11 signature completed in one pass through the press. Write today for full details, and a brochure describing the Miller TPJ Two Color-Perfector and the companion Miller SJ Single-Color Offset Presses will be sent to you promptly.



MILLER PRINTING MACHINERY CO., 1135 REEDSDALE ST., PITTSBURGH 33, PA. • IN CANADA: SEARS LIMITED, 253 SPADINA ROAD, TORONTO 4





In every area of Lithography

S-T PROCESS

"WIPE-ON"

does the job better

In every area of lithography, the finest reproductions are attained with the S-T Process. Regardless of the job—books, yearbooks, calendars, maps, publications, brochures, business forms, catalogs, posters, labels, fine art reproductions—S-T plates consistently provide highest quality . . . the kind of quality that **keeps** customers sold.

The S-T Process is a combination of precision-grained aluminum plates and specially developed chemicals. S-T plates, available in a wide range of sizes from 10" x 15¼" to 58" x 77", are easily, quickly coated by hand . . . cutting preparation time in half. Mechanically-grained for greater water retention, S-T plates assure smoother, trouble-free press performance. On long runs, impressions remain sharp and clean . . . all the way to the final press sheet.

Whether the next printing job is a small folder, a road map, a large poster, or a multiple run of office forms, the S-T Process will save you time and reduce production costs. Call the Pitman office nearest you for details.

Everything for the S-T Process—plates, coating, ink, developer, gum, wipes and lacquer—is distributed exclusively by the Harold M. Pitman Company. S-T plates are manufactured by Sumner Williams, Inc.

Pitman

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Genuine watermarked (w) and
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Exact

TEXT PAPERS

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Wausau (w)
Everest

OFFSET PAPERS

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BroKote

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Exact

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Wausau (w)
Exact

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*Specialists in the creation of
fine sulphite papers for
printing, writing, and general
business requirements.*

Wausau papers are made exclusively with
Magnefite Processed Fibers . . . for
better sheet formation, greater opacity,
extra strength, finer over-all printing
characteristics. Another reason why
you can be sure that all Wausau papers
are "made with extra care."

Wausau papers *

MADE WITH
EXTRA CARE

*meet
Norman
Porter...*



*... Vice President of the newly formed
American Company of
R. W. CRABTREE & SONS Inc.*

Through him the CRABTREE Organisation offers
you printing machines of advanced design, sound in
construction and reliable in performance.

So contact Norman Porter at the following address
and learn more about these machines.

R. W. CRABTREE & SONS Inc.

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Manufacturers of the: COUNTESS, MARQUESS, EMPRESS & AMBASSADOR OFFSET PRESSES

MODERN LITHOGRAPHY, January, 1961



When you load with **FORMALITH** YOU SHOOT WITH CONFIDENCE

Here is day-in, day-out dependability!

Whether it's the first exposure or the last in your shooting schedule, you can count on this famous lith film for consistent performance without make-overs.

Formalith's dimensionally stable base won't kink, scribes perfectly and cuts and scores easily. Its extremely high contrast emulsion provides wide latitude in both exposure and development . . . produces beautiful line and screen negatives. Lines are clean and black, halftone dot structure is sharp and hard. Middle tone reproduction is unexcelled. No other lith film combines Formalith's advantages in such high degree, yet it is *not* premium priced!

ILFORD INC.

37 West 65th Street, New York 23, N.Y.

IN CANADA: Canadian distributors for Ilford Limited,
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Formalith G5.71 (.005" base)
and G3.71 (.003" base)
are available from your
regular graphic arts supplier.

shouldn't **You** *be using* **a PRO** *Professional's* **plate?**

Your specialty may be forms printing, yearbook printing, metal decorating, poster projection, or general offset. But, your business is professional lithography...turning out finer work faster and more profitably.

Most professionals depend on Harris Alum-O-Lith Heavy Duty Plates, and for good reason. See our comparison chart below.

Characteristics	Harris Alum-O-Lith the Professional's Plate	The other pre-sensitized offset plates	Advantages of Harris Alum-O-Lith "Professional" Plates
Size Range	To 77"	To 60"	A plate to fit every offset press
Gauge	.005 to .020 (10% to 30% heavier, size for size)	.005 to .012	Easier to handle. No stretch, tear or kink
How Made	Flat sheet	Continuous web	Sheet permits wider flexibility of sizes and styles for user
Surface	Lightly etched (Micro-Surfaced)	Perfectly smooth or brush grained	Advantages of both smooth and grained plates
No. of guaranteed printing sides	Two	One	Double economy

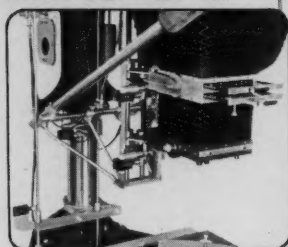


**HARRIS
 INTERTYPE
 CORPORATION**

Lithoplate, Inc.

A Subsidiary of Harris-Intertype Corporation
 Industrial Park Street, Covina, California
 5308 Blanche Avenue, Cleveland 27, Ohio

MOST VERSATILE!



B-1034
Secondary Camera
with Counters.

Model #167-113C
MB6DLU

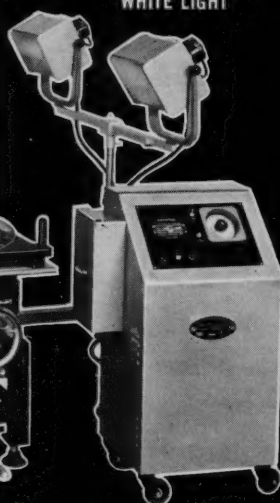
Here's our answer to the demand for a combination copying, enlarging and reducing camera for precision color separations from 35mm transparencies up to 40x50 reflection copy with complete registration from negative to press plate. This camera features all the latest developments required today in the Graphic Arts Field.

To our sturdy time-proven line of cameras, we have added the NEW 1000W ASCORLUX Xenon Pulsed Arc Lightsource and a Secondary Camera. This secondary projection camera, with negative holder in register, is incorporated to handle from 35mm up to 4x5 transparencies or negatives. With a 4" lens, 35mm can be enlarged 16X in register and, with a 6" lens, the 4x5 can be enlarged 10X in register. The secondary camera equipped with counter system enables you to make exact duplications of same setting in register at any later time. The camera back masking for making continuous tone negatives is simplified by our method of perfect registration on the vacuum easel, especially from 35mm transparencies.

ACCESSORIES: Vacuum easels and punches with complete positive registration from negative to press plate.

CAESAR-SALTZMAN PRECISION PROCESS COLOR CAMERA

for PHOTOMECHANICAL REPRODUCTION
featuring **ascorlux®** PULSED XENON
ARC LIGHTSOURCE
with CONSTANT COLOR BALANCED
WHITE LIGHT



- HALFTONE PROJECTIONS
- CONTINUOUS TONES
- ENLARGEMENTS
- REDUCTIONS
- COPYING
- MASKING

- REFLECTION COPY FROM 40" x 50" TO 8" x 10"
- REDUCTIONS TO 35mm
- SEPARATION ENLARGEMENTS FROM 35mm
- HALFTONES UP TO 20" x 24"

BASIC MACHINE CONSISTS OF THE FOLLOWING STANDARD PARTS:

- 36x40 Baseboard, 29" high
- Pair of 14" Condensers
- Lenslight
- Shutter with Time Delay
- Filter Drawer above Lens
- Bumpers
- Footswitch
- Registration of Film Holder to Camera
- 11x14 Film Holder with Adjustable Peg Bar (8x10 proj.)
- 12" Goerz Artar Process Lens
- 35mm to 4x5 Negative Holder with Registration
- Two Counters and Lights for Negative Motion
- One Counter for Lamp Positioning
- One Counter and Light for Lens Motion
- Xenon Power Supply with Microflex Timer and Light Head
- Socket with #302 Enlarging Lamp
- B-1034 Secondary Camera with Counters

PARTIAL LIST OF USERS

- Balzer-Shopes
San Francisco, Calif.
- Bell Hortenstein Co.
Cincinnati, Ohio
- Edwards & Deutsch
Chicago, Ill.
- A. B. Hirschfeld Co.
Denver, Colo.
- Mass. Institute of Tech.
Lexington, Mass.
- National Record Press
Richmond, Va.
- Offset Reproductions
New York, N. Y.
- Pringle & Booth, Ltd.
Toronto, Ont., Can.
- Providence Litho. Co.
Providence, R. I.
- Queens Lithograph Co.
Long Island City, N. Y.
- Alex Wilson Pub., Ltd.
Toronto, Ont., Can.

Headquarters for Professional Photographic Equipment Since 1920



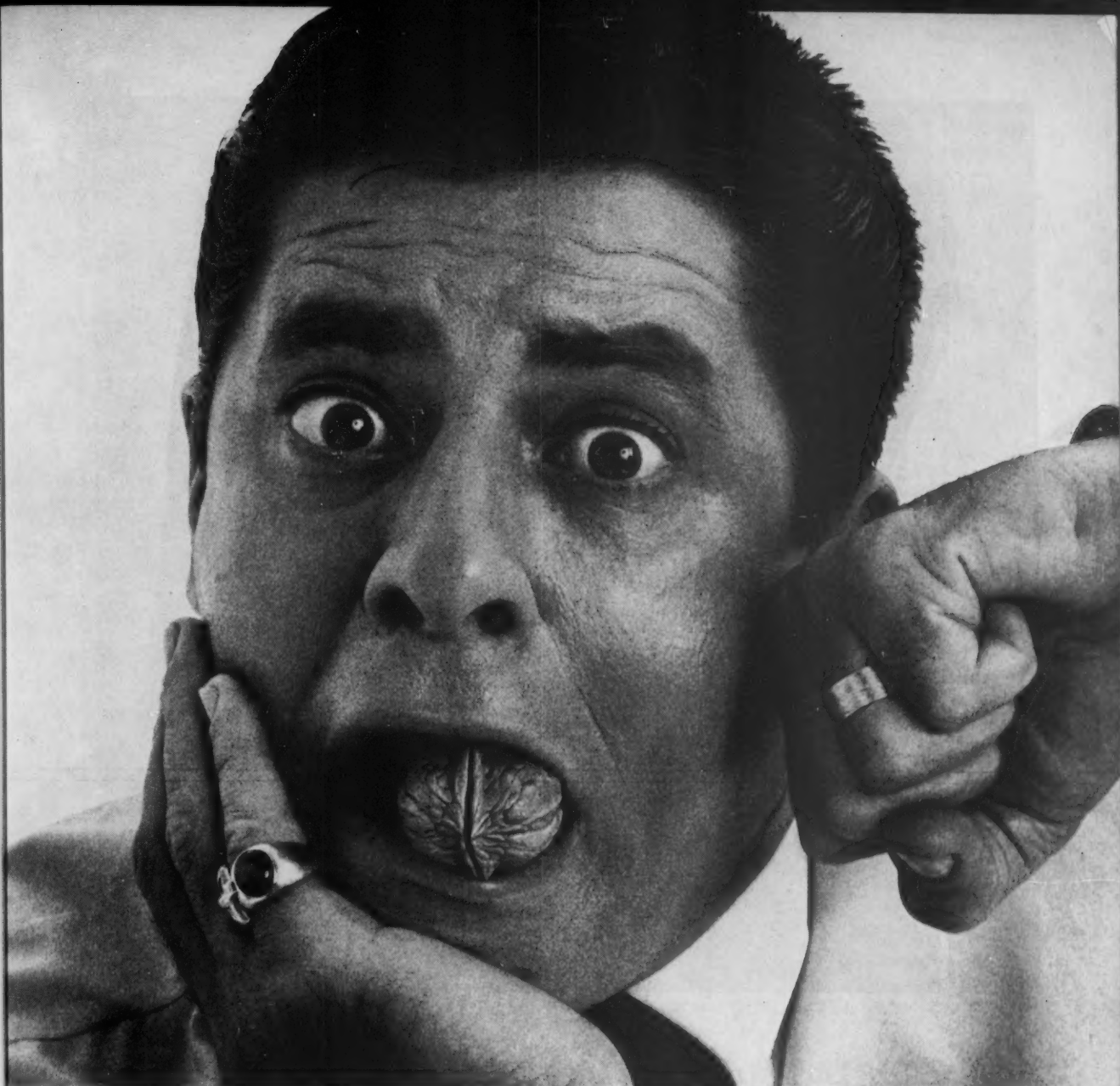
J. G. SALTZMAN, INC.

SALES DISTRIBUTORS for CAESAR MANUFACTURING, INC.

480 Lexington Avenue, New York 17, N. Y.



Write For Complete Literature



JERRY LEWIS STARS IN HIS OWN PRODUCTIONS / RELEASED BY PARAMOUNT

How to crack "tough nut" prospects:

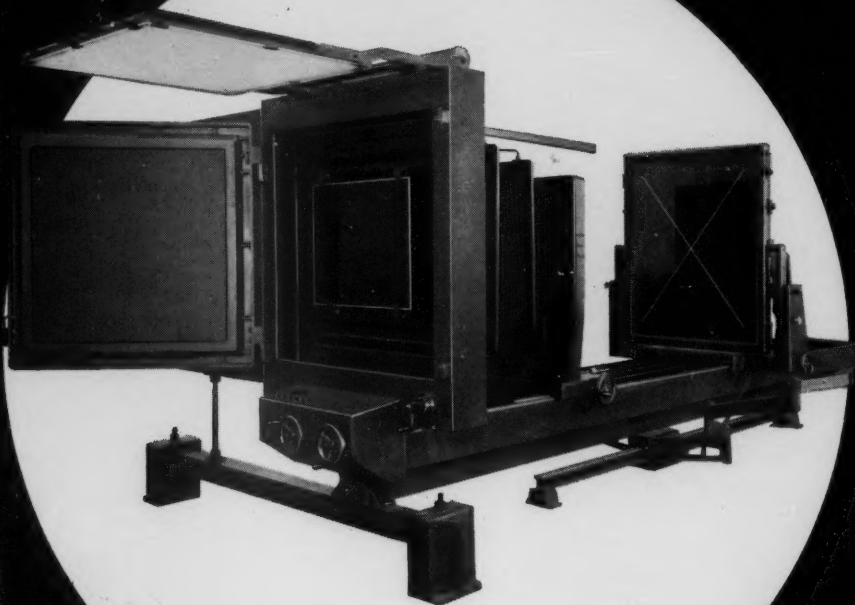
■ They'll come out of their shells fast when you offer to print their uncoated or pigmented offset paper jobs on fully coated paper *at no extra cost!*

That's exactly the advantage you get with CONSOLITH COATED OPAQUE—the double coated offset paper at uncoated prices. This unique, fully coated, matte finish enamel gives far better printing quality than is possible with *any* uncoated or pigmented offset. Its superior ink holdout and uniform printing surface assure unusual halftone sharpness and gloss. Press performance is outstanding. No worry about ink mottle or picking.

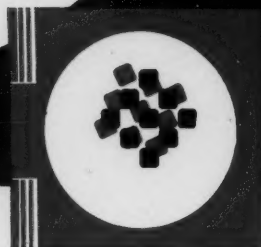
Prove-it-yourself! Get the facts and *free trial sheets* from your Consolidated Enamel Paper Merchant. Make a test run. Compare performance, results, costs with *any* uncoated or pigmented offset paper. Then go after that new business!

Consolidated
LARGEST ENAMEL PAPER SPECIALIST

A COMPLETE LINE FOR OFFSET AND LETTERPRESS PRINTING
CONSOLIDATED WATER POWER & PAPER CO. • NATL. SALES OFFICES, 135 S. LA SALLE ST., CHICAGO



LANSTON LB-32
Low Bed Darkroom Camera
32" x 32" film size.



NEW Lanston precision darkroom camera **compact...versatile...economical**

Designed to meet a wide range of present day lithographic, printing, photo-engraving, gravure and industrial requirements, the Lanston Precision Low Bed Darkroom Camera affords hairline register and ease of operation for all major processes. Whether used for line, half-tone, combinations, grain, monochrome, color, or any other process where accuracy, square alignment and register are essential, the operator will find every important condition conveniently under his control—either inside or

outside the darkroom, or both, as may be required.

Get complete description of all the outstanding features, dimensions and list of optional equipment and accessories in the new LB-32 illustrated brochure. Write today! Unitronics, Inc., Subsidiary of Lanston Industries, Inc., Box 4768, Philadelphia 34, Pa.

This advertisement was composed on the Monotype in Craw Clarendon, Century Schoolbook and 20th Century Medium.



Lanston

unitronics, inc.

Film Dispenser • Light Integrators • Optical Depth Gauges • Contact Camera • Step and Repeat Machines • Overhead Cameras •
 Proofing Film • Plate Coaters • Developing and Darkroom Sinks • Vacuum Printing Frames • Layout and Stripping and Dot Etching Tables

**AT LAST... a liquid
photomechanical developer
with all the qualities
of the best powder formulas**

ENGRAV-O-LITH®



Engrav-O-Lith has been tested for one full year under every condition of climate throughout North America. During these tests its excellent cold weather storage characteristics and great resistance to oxidation were confirmed.

Engrav-O-Lith is packaged as a 2 solution liquid developer in convenient Cubitainers so that you can use the entire contents at once or only in portions as needed with a probe dispenser.

Large users experienced with powder developers will instantly recognize the greater convenience and dependable uniformity of this new liquid developer for line and halftone processing.

All Hunt branches are stocked for immediate delivery. Send us your order today.

FOR SUPERIOR RESULTS AROUND THE CLOCK USE HUNT GRAPHIC ARTS CHEMICALS

PHILIP A. HUNT COMPANY

PALISADES PARK, NEW JERSEY

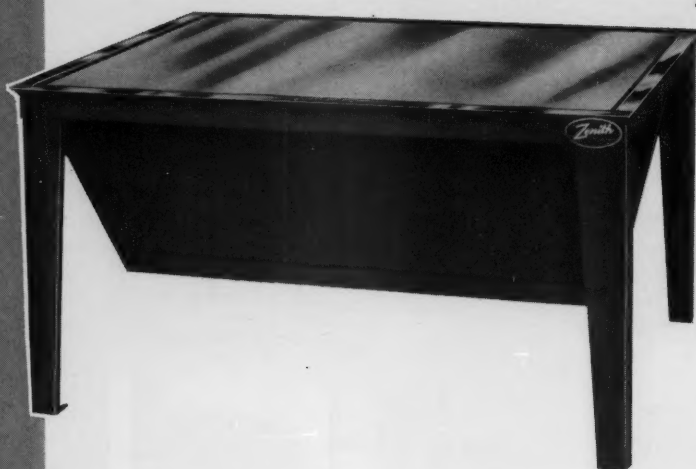
BRANCHES IN PRINCIPAL CITIES

In Canada: Philip A. Hunt Company (Canada) Ltd., 207 Queen's Quay West, Toronto



ZENITH LITHO EQUIPMENT

PIONEERS since 1928 ... and still the BEST!



★ ZENITH Layout & Stripping Table

All welded construction—for perfect stability. Adjustable for height. Translucent plate glass and scientifically designed lighting gives shadowless, non-glare uniform light. Exclusive feature: The stainless steel straight edges bounding the illuminated area are adjustable so they may be kept constantly square and true.

★ ZENITH Plate Whirler

Developed and refined by Zarkin. The final answer for the exacting craftsman. Welded structural steel base, aluminum turntable and lid, copper tub. Smooth operation gives uniform coating. Counterbalanced lid floats open with finger-tip touch. Front edge always within easy reach. 80% opening affords ample room for insertion of plates. A number of unique improvements have been incorporated: Speed reducers eliminated; making it absolutely noiseless and cutting maintenance. Speed now controlled by twist of a dial! Equipped with tachometer speed indicator. Only clean, filtered air reaches plate for quick drying. Operator has choice of heated or cool air and a light shows which is being used. The drive is now a single long-lasting V-belt. Automatic water control for plate washing. Extra heavy duty ball bearings.



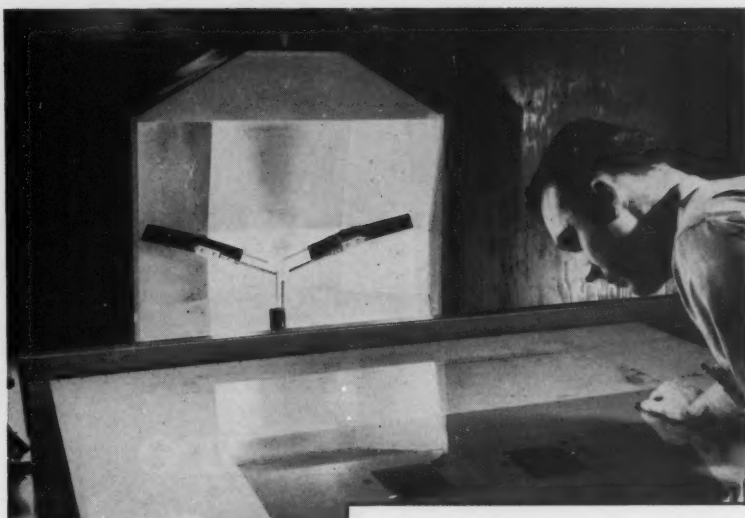
Get Zarkin's quote before you buy:
DOWN DRAFT DEEP ETCH TABLES • LAYOUT & STRIPPING TABLES • VACUUM FRAMES • TEMPERATURE CONTROLLED SINKS • PLATE GRAINERS • PLATE WHIRLERS

ZARKIN MACHINE CO., INC.

The name that means quality

34-19 TENTH STREET LONG ISLAND CITY 6, N.Y. AS 4-0808

Fulfills Every Demand



"Performs perfectly,"
says Harry L. Kaplan,
President American Printing
and Lithographing Co., Dallas,
about the—

Strong

TRI-POWER PRINTING LAMP

One Tri-Power, with one frame, will do the same job as two or three of the next most powerful lamps with two or three frames, also effecting a saving in space.

The average lithographer can save \$2000.00 a year with each TRI-POWER. Designed for use with printing frames 30" x 70" and larger, or when shorter exposure time is desired on smaller work.

American

PRINTING AND LITHOGRAPHING COMPANY

1600 SOUTH AKARD STREET DALLAS 16, TEXAS Riverside 1-1838

January 15, 1960

Mr. William White
% Strong Electric Company
87 City Park Avenue
Toledo 1, Ohio

Dear Mr. White:

We would like to take this opportunity to inform you that we have been using our Grafarc Tri-Power equipment for about one and one-half years and have found it to be a most dependable piece of equipment. It has performed perfectly under all conditions and has fulfilled every demand we have made of it as per our original requirements. There have been many days when this unit was operated on a second shift and at present it is still functioning as efficiently as it did the day it was installed.

With best wishes,

Regards,

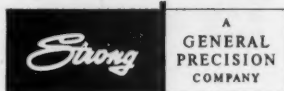
American Printing and Lithographing Co.

Harry L. Kaplan
Harry L. Kaplan
President

HLK:bad

30-DAY TRIAL WITHOUT OBLIGATION


— Write for literature.



THE STRONG ELECTRIC CORPORATION

17 City Park Avenue • Toledo 1, Ohio

A SUBSIDIARY OF GENERAL PRECISION EQUIPMENT CORPORATION.



**no more
messy
mixing**

Save with Powerlith Developer Concentrate

Now, Chemco introduces a pre-mixed, liquid, two-part formaldehyde developer concentrate ready for immediate use by simply adding it to water. Packaged in unbreakable 5-gallon Cubitainers. All you do is place container on shelf and draw off A and B concentrate as needed. No more dissolving powders with possible errors in formulation. No double handling. As developer is used, container collapses eliminating aerial oxidation and insuring unlimited shelf life.

Add undiluted Powerlith Concentrate to replenish tired developer, thus making one bath last an entire shift. One set of A and B 5-gallon containers makes 20 gallons of developer. Order a supply today, plus Chemco Power-Fix to complete your darkroom changeover.



Chemco Photoproducts Co., Inc.

Main Office and Plant — Glen Cove, New York

Atlanta, Boston, Chicago, Cleveland, Dallas, New Orleans, New York

Exclusive West Coast Agents: California Ink Company, Inc.

Exclusive Agents in Canada: W. E. Booth Company, Ltd.

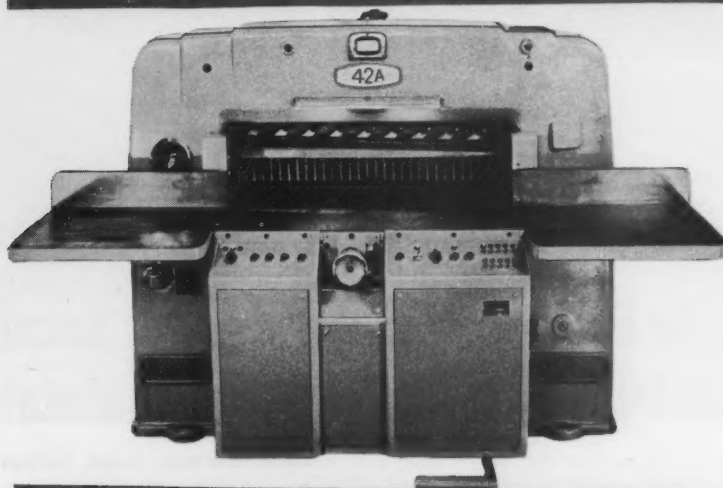
NEW NAME FOR OUTSTANDING
VALUE
BRAND NEW FOR 1961

ROYAL ZENITH

PIVANO PAPER CUTTER

32 1/4" • 42 1/8" • 53 1/8" • 67" Sizes

Advanced Design • Latest Compact Construction, Made Especially for American
Lithographers • All American • Precision • Heavy • 100% • Made in U.S.A.



ULTRA MODERN FEATURES FOR FINEST PERFORMANCE!

Exceeds all U. S. safety standards, two button safety controls.

Magnetomatic, fully or semi-automatic electronic programming available.

Magnified, eye-level, illuminated indicator allows fine settings to 1/4".

Magnetic clutch, overload cutout. • Quick, sure lubrication.

For more information, contact your local distributor.

SOLD AND SERVICED ON A NATIONWIDE BASIS BY THE ROYAL ZENITH ORGANIZATION
For Illustrated Brochure, full information, write:

ROYAL ZENITH CORPORATION

180 Varion St., New York 14, N.Y. • 1280 S. Broadway, Los Angeles 15, Calif.
412 West Washington, Englewood, Chicago 9, Illinois





Pressman Charles E. Farris removes Press Washer drip pan after Baldwin washup on Fawcett-Dearing ATF 35" five-unit web offset press. Other Baldwin equipment includes Ink Fountain Agitators on all units and a pair of #40 Circulating Water Levels.

Inset shows a close-up of Baldwin Agitator on one of lower units—pressmen really go for that cleans-in-a-minute cone.

"We use Baldwin press equipment because it helps us get started faster, run smoother, and maintain quality."

**John Ganote, Supt. Offset Department
Fawcett-Dearing Printing Company
Louisville, Kentucky**

That was Superintendent Ganote's reply when asked why the press you see here is Baldwin® equipped. He went on to be more specific:

"A pressman needs all the *automatic* help he can get. That's exactly what he gets from Baldwin equipment when it comes to ink, water, and washup. He gets started faster because he just puts ink into the fountain, flips a switch, and lets the Baldwin Agitator take care of ink while he takes care of other things. And the job runs a lot smoother because water supply and level are taken care of automatically—these #40's hold enough

fountain solution to keep the press going all day. We don't have the web-breaks from water spills you get when the pressman uses a bucket to fill the fountain. And when the run is complete, it takes only a couple of minutes to strip *all* the ink from *all* the rollers and be ready for the next run. Every one of these things is important to quality. And they show up good on the cost records!"

Find out *how* Baldwin equipment does what Superintendent Ganote talks about—send for illustrated literature.

BALDWIN-GEGENHEIMER CORPORATION

Baldwin® Products are protected by U.S. and foreign patents and patents pending

Manufacturers of Baldwin Ink Agitators • Baldwin Press Washers • Baldwin Water Stops • Baldwin Water Levels

**80 Roebling Street
Brooklyn 11, New York
Phone: EVergreen 8-5610**

The New ATF SENATOR "Program Spacer" Cutter

MODEL

42



- Now with 24 dial-selected automatic program channels!
- 100% electronic magnetic tape settings!
- Guaranteed setting accuracy—.002"!
- Photo-cell extra safety device!

The new Model 42 "Program Spacer" ATF Senator is so soundly designed, so simply automated, so easy-to-set that it can outperform conventional manual-spacing cutters *even on short-to-medium run jobs.*

Up to twenty-four different jobs can be programmed for completely automatic, 100% electronic spacing on one magnetic tape.

Space settings are instantly recorded—without a single mechanical adjustment—on a reusable magnetic tape. Space settings can be instantly repeated, or instantly erased—can be stored for future use—can even be corrected backward or forward (to adjust for gripper variations, etc.) without further set-up.

The new Model 42 "Program Spacer" Senator retains all of the standard features that have made the Senator

cutters so popular that large scale expansion of production facilities has been necessary to keep up with the demand.

Here are some of them:

- Double piston hydraulic system for true cushion clamping
- Finger tip, calibrated clamping pressure control
- Safe, low-pressure clamp treadle
- Safe, two-hand, push-button starting
- Extra-safety photo-cell device
- Safe, approved non-repeat device
- Safe, built-in overload clutch (no shear pins)
- Safe, fast, one-man knife change
- Fast, accurate, 3-section, 2-speed power back gauge
- Powerful, direct-line knife pull



AMERICAN TYPE FOUNDERS

200 Elmora Avenue, Elizabeth, N. J.

ATF Type Faces used in this advertisement: HEADS: Craw Clarendon TEXT: Bodoni Book

PLATE LIFE INCREASED • BETTER REPRODUCTION FROM NEW LITH-KEM-KO DEEP ETCH CHEMICALS

NEW LITH-KEM-KO PRODUCT PERMITS PRE-COATING OF DEEP ETCH PLATES

A revolutionary approach to an old problem by the Lith-Kem-Ko research laboratory now makes it possible to pre-coat deep etch plates under all climatic conditions. A new product, known as Lith-Kem-Ko Counter Etch No. 3015, is applied to the plate directly prior to the coating operation. This solution does not merely clean the metal, but actually chemically treats and "pacifies" the plate surface thereby retarding "dark reaction" and permitting storage of coated deep etch for periods up to four or five days with no adverse problems.

George L. Thompson, President of Litho Chemical & Supply Co., Inc., points out the following advantages:

1. Coated plates can be used either immediately or held for later use with no procedural change.
2. No special developing solution is necessary — regular Lith-Kem-Ko Deep Etch Developer #3000 is applied in normal manner.
3. No formula change necessary for the Lith-Kem-Ko Positive Sensitizer — all its fine qualities are retained.
4. Tone values remain the same whether plate is processed immediately or held until later.
5. Stencil removes easily under all humidity conditions.
6. No pre-etching is necessary.
7. The Lith-Kem-Ko Counter Etch No. 3015 is highly concentrated for economy.

Thompson reports that extensive field testing has been completed with excellent results, and that many lithographers are already using this new Product on all deep etch and copperized plates.

"H" ETCH SALES SKYROCKET NEW LITH-KEM-KO ALUMINUM ETCH A BOON TO OFFSET

Harry "Doc" Mueller, Sales Manager of Litho Chemical & Supply Co., Inc. reports a tremendous response from the industry to the new Lith-Kem-Ko Deep Etch Aluminum Etch No. 3013 "H". Mueller stated that this product contains no iron compounds whatsoever, and therefore, there is

no chance of iron residue remaining in the grain to prevent proper adhesion of the copperizing solution or lacquer. Old type etches employing iron perchloride sometimes leave slight iron deposits in the grain causing a poor bond between the metal and the copper or lacquer with resultant "mealy" prints. The "H" Etch solves this problem completely and requires no extra cleaning steps. It etches quickly and leaves the metal amazingly clean and receptive.

Mueller further stated that the completely new etching concepts of this product permit the use of brush-grained and chemically treated aluminum plates for deep etch and copperized work. Heretofore, the benefits of this type plate could not be fully utilized since old-type etches could not penetrate the chemical surface layer.

Lith-Kem-Ko has installed new equipment for the manufacture of the "H" Etch at all three of its plants to meet the demands of the industry.

LITH-KEM-KO POSITIVE SENSITIZER STILL UNEXCELLED

Manufactured under U. S. Patent No. 2,950,195, issued to Litho Chemical & Supply Co., Inc., The Lith-Kem-Ko Deep Etch Positive Sensitizer stays clean to the last ounce, *with no sedimentation*. It flows evenly and renders a hard stencil on either aluminum or zinc plates. This product resists penetration of developer, etch, copperizing solution or lacquer under all conditions. In conjunction with the new Lith-Kem-Ko Counter Etch #3015, plates coated with Lith-Kem-Ko Positive Sensitizer can be held for four or five days before processing. It is available in a number of variations to meet the different requirements of modern platemaking.

LITHO CHEMICAL & SUPPLY CO., Inc.

46 HARRIET PLACE, LYNBROOK, NEW YORK

4227 WEST 43RD STREET, CHICAGO 32, ILLINOIS

1418-22 SANTA FE AVENUE, LOS ANGELES 21, CALIFORNIA

EDITORIALS



THE cries of our industry's financial leaders about unfair depreciation allowances are not being wasted in the wilderness. Other industries have been heard from in recent months, and only last month an independent university publication aimed some heavy artillery at the government's depreciation allowances. The publication is *Thought*, a Fordham University quarterly, edited by a group of professors at the Fordham Graduate School, and well respected in business as well as academic circles.

In a study by the Rev. William T. Hogan, S.J. and Frank T. Koelbe, reported in the December issue of the publication, the men declare that serious unemployment could result from continuation of the present depreciation policy. Because the present depreciation allowances put such a financial burden on industries using heavy equipment, it is extremely difficult for them to replace obsolete equipment with modern units, much less find the capital that will be needed for expansion to provide the tools for an additional 13½ million workers in the next 10 years, the authors assert.

At the base of the depreciation controversy is this problem: how to replace a piece of obsolete equipment purchased 15 or 20 years ago with a comparable new unit costing perhaps three times as much? In an inflationary economy, such as ours has been (almost without exception) for the past 20 years, the price of replacement equipment always is far greater than the original cost, even without making allowances for extra attachments and refinements to make the new unit really modern.

In a deflationary economy, of course, the opposite situation would prevail, and the financial picture would be reversed. But the accountants and financial planners in industries whose investment is largely in heavy equipment (including, obviously, all phases of the graphic arts) feel that depreciation allowances should not be tied to the original

cost of equipment, but rather should take into account the amount of money that will be needed to replace it.

In preparing their thesis, authors Hogan and Koelbe have drawn several examples from the printing industry. Among them is the case of the printing press installed in 1935 at a cost of \$31,400 which required an investment of \$128,000 when replaced in 1958. Should the present depreciation-tax program be maintained, the authors feel, an additional \$60 billion worth of plant and equipment will grow obsolete by 1970. "The \$96 billion required at the present time for modernization, added to the \$60 billion, demonstrates our crucial need for capital to replace obsolete equipment. . . . The continuation of our depreciation policy could well create a serious unemployment problem in the face of the rapid growth of our labor force and of foreign competition."

The authors say this problem is accentuated by liberal depreciation treatment offered in foreign countries to stimulate private investment.

The report, titled "Economic Depreciation and Employment in the 1960's," however, seems to present a paradox when viewed in the light of recent

(Continued on Page 117)

Quote of the Month

"By 1970, if twice as many new workers are to be engaged in an equally efficient manner, technological development will have to proceed that much faster. Since present depreciation allowances force business to cling to outdated equipment which acts as a drag on technological progress . . . the choice of one of two economically unhealthy alternatives will become inevitable. Either productivity will have to be sacrificed to increase employment, or employment will have to be sacrificed through temporary dislocations to increase productivity." Report in Thought magazine. (See editorial)



Front view of the modern plant of Timely Advertisers in California

'Timely' Builds

By Edward J. Meier
California Correspondent

MORRILL "DUKE" JOHNSON had a basic idea 11 years ago—that there would be good business possibilities in producing direct mail advertising for the giant food markets springing up all over Southern California. Multi-colored ads that would be eye-catching to customers, bring added profits to supermarkets, and provide a constant volume of printing, was Duke's thought.

He started his business, "Timely Advertisers," with a Multilith press, a folder and a Speed-O-Mat addressing machine. As volume increased, additional Multiliths, folders and addressing machines were added. Larger sheet-fed offset presses were then purchased to handle even greater volume.

Company Doubles Its Production

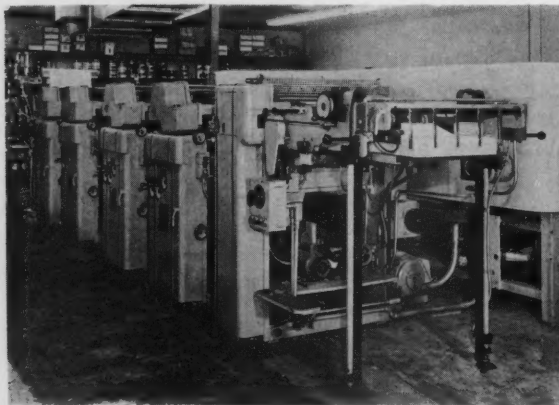
Four years ago, Duke decided to double his production, with a minimum amount of increase in personnel; so he purchased a four-unit web-offset press. His analysis showed that the web press produced 100,000 four-color ads in one shift with two men, as compared to 40,000 single color ads with one man on his sheet-fed offset press.

Timely's newest press, delivered last fall, is a 17½ x 26" four-color Journeyman web-offset that is equipped with a receding pile delivery. The press has a pneumatic lift at the mill roll stand in order that the parent rolls can be lifted from the floor position to the operating position. Turning bars on the press permit printing the reverse of the web in two colors. The press will print four colors one side of the web and two colors on each side of the web, or it can print three colors on one side and one color on the reverse. Operating speed is 23,000 impressions an hour.

One of the important advantages of web-offset to Timely is the economy of being able to produce as many as 15 jobs in one day with as many as 50 plate changes, with the jobs running as low as 600 copies, which, in the past, was virtually unknown on a multi-color press.

Timely is able to offer the customer a printed throw-away with an additional color for only a small additional charge per thousand copies. To the housewife who spends an average of \$22 a week at the food market, an ad in color has more appeal than the usual black, Timely feels.

Left: Four-color Journeyman web-offset press (17½ x 26") at the Timely plant, which is used for the printing needs of 100 food markets



served by the company. At right is a view of the mailing room, which has about three million address plates in its files.



Big Business in Supermarket Field

All the advertising printed by Timely is done on the basis of two to four colors.

Completely Integrated Press

Timely provides its customers with a completely integrated service. Starting with the original receipt of copy from the market, Timely makes a layout and paste-up, returns it to the customer for OK, shoots a negative, makes a plate, prints, folds, addresses and mails. The schedule is so tight many times that the advertisement is in the mail one hour after the piece is off the press!

Having the ads arrive at the consumer's home while the food market sales are in effect is the critical area of concern. A post office closing hour is Timely's deadline . . . and thousands of mailers arriving five minutes after the post office has closed are dead.

Three million address plates are in stock, which is evidence of the scope of this operation. The average ad circulation is a half-million copies a week, on an alternate day basis.

At first, many of the markets would order from 15,000 to 25,000 advertisements for mailing to decentralized areas. For example, suppose there is a market in Westchester, a suburb of Los Angeles. The mailing would probably go to Kentwood, Manhattan Beach, Hermosa Beach, Inglewood and other surrounding suburbs. When coupons for daily specials were returned without any coding, the markets never really knew the relative success of their advertising in extended areas.

'Impact Advertising'

Timely suggested a new approach, called "impact advertising." This involved coding with postal zones the coupons in each one of the advertisements. When the coupons were returned to the stores, they were collected and given to Timely for review. Timely then analyzed the total and would find perhaps three responses from Hermosa Beach, two from Manhattan Beach, one from Santa

Monica, 5,000 from Westchester and 2,000 from Inglewood. As a consequence, the markets were immediately able to direct all of the mailing to the more responsive areas and pinpoint their advertising for special products with considerable accuracy. This approach brought economies that opened new areas with other markets, so that they could afford and enjoy the benefit of direct mail advertising.

There are roughly 100 food markets on Timely's list of regular customers, and their deadlines come three times a week. Normally, the ads are stripped up and sent to the platemaking department, where plates are made in advance and bent on plate bending jigs, so that they can be ready for the press without delay. In a given seven-hour shift, there may be from 10 to 18 jobs with 30,000 to 30,000 impressions. After the jobs have been run on the web-offset press, they are folded and addressed.

With the advent of more and larger supermarkets in Southern California, Timely expanded further and now operates nine folders and seven Speed-O-Mat mailers to pace the two web-offset presses.

Jack Keller is Timely's plant superintendent; Ed Sauer (of baseball fame) is the sales manager. Timely has a normal operating personnel of about 48. ★

Folding department at the busy California plant of Timely Advertisers



Pa

▶ ▶ ▶

HOW can I improve my sales? You have no doubt asked yourself this question many times and there are many different answers, but one which isn't offered often enough is "customer education."

To increase the market for your product one good way is to show your customer how he can utilize your skillful services to improve the appearance of his copy and cut his production costs. Remember, experience and printing knowledge are assets valuable only to the extent to which they are applied.

These assets can be more fully utilized if your customer is told how they can help him. Give him a short course in lithography, showing him techniques and methods that will save him time and money, and improve his finished product. Your suggestions will be appreciated, whether or not they can be used, and the printer-purchaser relationship will be improved.

How can you do this without spending an excessive amount of time and money? Simple. Prepare a brochure, letter or a broadside suggesting some of the following possibilities, or any others you feel might be worthwhile. It can be transmitted either by mail — perhaps with your monthly statement — or in person through your sales representative. Following are some handy tips that might be included in such a mailing piece. You will no doubt be able to elaborate on these ideas and develop others of your own.

1. Preprinting bond stock with photographically non-reproducible blue ink.

If your customer frequently submits work which has essentially the same

format it would be wise for him to preprint a standard form with photographically non-reproducible blue ink.

Typists may use these preprinted pages as guides in order to standardize the area in which they type. They may also indicate where page numbers, running heads, and other miscellaneous data should be placed.

In addition, illustrators may find preprinted pages (tailored to their individual needs) useful for alignment and centering. The type of markings would depend, to a large extent, on the use to which it was put. This procedure, of course, would be practical only for those who frequently use a fairly standard format.

2. Existing negatives may be salvaged by scribing and opaquing, if only minor changes are to be made.

Many negatives are constantly re-used by the customer and often they are discarded because of slight changes or revisions in the subject matter. If these changes are not extensive they may be made on the existing negative. Explaining to the customer that negatives may be altered by scribing, opaquing, or cutting-in may save him time and money. It is quite possible that he is unaware of these simple processes and how he may utilize them to his advantage. A simple stripping job done by you could conceivably save him the expense of preparing entirely new copy. If the revision is complex, a new original should then be prepared by the customer. Saving a customer money is perhaps the best way to cement your relationship with him.

3. Additions and deletions may be made by overprinting.

Here is another way the customer may save expenses by utilizing your services. Additions or deletions may be made to existing bond stock forms.

letterheads, or the like, by overprinting. It is quite possible that the customer intends to discard large supplies of this sort of material and replace it. The change may be slight, and if it is, it might be accomplished through overprinting.

In addition, the use of color in overprinting jobs such as this, may increase the usefulness and enhance the appearance of the product. Normal care must, of course, be taken to insure that such an overprinting is thorough and cannot be detected.

4. Suggest the use of certain artist's materials to improve the appearance of the copy.

Many of your customers, unless they employ professional illustrators, may be unaware of the wide variety of artist's products available to them. Items such as Benday, Artype, and



Zipatone can give a professional appearance to the copy. These materials include solid black, striped, or cross hatched tape of varying widths, screened adhesive-backed cellophane, letters and numbers in various type-faces and sizes, arrows, symbols and various mathematical signs. All of these products are very simple to use.

A supply of these items may be obtained and resold to the customer

Pay Off In Sales

for his convenience or you may suggest where he may obtain them himself. When they are used correctly the appearance of the copy will be greatly improved.

5. *Typists can justify the right-hand column, improving the professional look of the copy and avoiding typesetting expenses.*

Justifying the right side of a typewritten page is a relatively simple procedure and worth the effort if the copy is not too lengthy. It does not, of course, provide the quality of a typeset page.

There are several ways to justify on a typewriter. Perhaps the quickest and surest way of accomplishing this is by first finding the average number of words in a line and then by multiplying them by the total number of lines. Then multiply the average number of characters (including an average number of spaces and punctuation marks) in each line by the number of lines in the copy.

Decide how many lines you desire in the justified copy and then divide that number into the total number of characters in the copy. The answer will give you the number of characters in each line of the justified.

If the width of the column is more important than the length, divide the number of characters in the desired column width by the total number of characters and you will then know how long the column will be. When these two dimensions are known, adjustments in either length or width may be made.

The next step is to have a rough draft copy typed in the desired area. After this is done the typist will be able to determine how many characters over (+) or under (—) each rough draft line is. The final justified copy is then typed, taking these variations into consideration and compensating for them.

6. *There are a variety of covers, bindings, and devices (such as acetate overlays) which may be used for brochures, folders, etc.*

You can tell a book by its cover. Why not familiarize your customer

with the many coverings and bindings available for his work. To improve the overall appearance of larger jobs and to create a more favorable first impression, the customer might be willing to invest a little more money and provide himself with a suitable covering. Cast-coated or matte finish covers are just two examples of the possibilities. In addition, window covers may be suggested if provisions can be made for them or the title page.

Acetate overlays give a rich look to the job and increase its durability. Colored plastic binders may also be used to dress up the job.

7. *Paper plates may be preprinted with letterheads, company logos, and similar matter.*

Paper plates may be preprinted with various items for ease of reproduction and decreased overall expense. Company logos, letterheads, and forms (plus many other items) used frequently and in great quantity may be preprinted.

The particular advantages of this process are avoiding the making of metal plates for each run and the storing of preprinted bond stock. Aside from these plus factors there are the elements of speed and economy for the customer.

8. *A desirable effect may be obtained by printing some halftone negatives as line shots.*

(Continued on Page 118)



This is an example of the first step in justification of the right hand side of a column.	-1
The digits on the right indicate the number of characters over (+) or under (—) the right hand column. It is simpler to justify by adding spaces to "minus" lines than subtracting space from "plus" lines. It should be noted that spaces skipped between longer words are less noticeable than spaces skipped between smaller words.	+1
	-2
	0
	+1
	-1
	-2
	-1
	-2

[[CASE HISTORY]]

of our quality control program

By Robert E. Wood

Quality Manager
Western Printing and Lithographing Co.

THE quality control department at our company was started in 1951. In discussing the quality problem in the graphic arts, we should first answer as best we can the following questions:

1. What is quality?
2. What do we mean by control?
3. Why do we want to control our quality in the graphic arts?
4. At what level should we control our quality?

These are questions that are not easy to answer. As a matter of fact, they are questions which, perhaps, have no definite, conclusive answers such as are found in the exact sciences. The following, consequently, represent what we at Western believe to be the answers to these questions.

What Is Quality?

1. *What is quality?* Quality is that characteristic of an item which makes it appealing and desirable to possess. This can be due to only three different things. In other words, there are basically only three ways in which we can build quality into our products. These are:

- A. Design.
- B. Materials.
- C. Workmanship.

A few examples of things in which each of these is foremost are as follows: *Design*—women's hats; *materials*—sterling silverware; *workmanship*—a fine wood carving.

Our products in the graphic arts are judged for quality on the same

From an NAPL address delivered as part of a panel on quality control.

basis, but unfortunately are seldom capable of such clear-cut distinctions.

2. Now if this is quality, *what do we mean by control?* In order to demonstrate this, we must divorce ourselves for the moment from quality and talk about what constitutes control on a general basis. Control is accomplished by what the engineer calls a control loop. A control loop requires the following:

- A. A means of error detection.
- B. A means of error correction.
- C. Feedback of information.

Let's take an example we are all familiar with. Let's talk about the control of speed on our highways. In an automobile, we have the means for error detection, since the speedometer measures the output and the road signs tell us what the standard is. If they differ, an error exists. We also have a means of error correction if we can speedup our car or apply the brakes. Obviously, feedback is supplied when the driver looks at the signs, looks at his speedometer, and then does something about it. When we fail to control speed, it is usually this feedback which is lacking. This lack of adequate feedback is the cause of most control problems.

The same principle of a control loop can be applied to the quality control problem. The only difference is, we then are talking about a quality characteristic rather than speed. In the case of the quality control loop, we must have:

A. *An error detector.* We have an error detector if we have inspection of the material being produced on

our machine and if we have a standard of what is desired.

B. *Error corrector.* We have an error corrector if we have the means and capability of adjusting the process.

C. *Feedback* from one to the other.

The goal of any quality control program should be to see to it that adequate quality control loops are functioning for each operation. If not, we must analyze the problem and see to it that the missing element of control is applied.

3. *Why is it important that we have control over quality?* We must have control over quality in order that we might be in a better position to fulfill the complete management function. The management function includes control of such things as production, costs, and the things which cause costs to be excessive, such as high waste, makeovers, etc. Only when control over the quality element is obtained is the manager in a position to fulfill his complete function. Properly functioning quality control loops provide this control of the quality element.

The fact that we have control does not necessarily mean that the process is being controlled at the proper level. However, since the control loop functions, this can be adjusted by changing the standard.

4. Consider the fourth question. *At what level should quality be controlled?*

A. It should be controlled at a level satisfactory to the end use of the product.

B. It should be controlled at a level satisfactory to the customer.

C. It should be controlled at a level better than is available from competition at the same price.

Perfection Is Expensive

Since the above describes the quality necessary for a good saleable product, we should not strive to maintain a higher quality level if it means a higher cost. The high cost of perfection makes it a prohibitive and undesirable level of quality to attempt to maintain.

Now that we have laid the groundwork and basis upon which the Western Printing & Lithographing Co. quality control operations are based, we can talk in more specific terms.

Western quality control extends to five areas:

1. *Incoming materials.*
2. *Preparatory operations.*
3. *Printing operations.*
4. *Finishing operations.*
5. *Shipping.*

Quality control of printing operations and incoming materials is probably the area of greatest mutual interest. At Western, our printing operations include letterpress, gravure and offset. However, I will confine my remarks on printing to the offset process.

Although our offset pressroom is equipped with the most modern equipment and staffed with competent supervision and help, one of the main purposes of the quality control department is to assist the pressroom supervision in the surveillance of the quality function. This is accomplished basically as follows:

In addition to the normal examination of sheets by the pressmen, quality examiners are assigned to each shift to examine press sheets on a random basis. The sheets are picked up at the press, rolled and carried to the examining area. Each sheet is date and time stamped.

Each sheet is compared to the OK or standard and examined for defects according to a check list. All defects are marked on the sheet and immediately brought to the attention of the pressman. Critical defects are also called to the attention of the foreman.

The results of the examination are marked on a quality audit card on

an individual job basis. Defects are classified as to minor, major and critical severity.

A *minor defect* is defined simply as follows: A defect which detracts from the overall appearance of the product, but which, under no circumstances, will affect the saleability or usability of the product.

A *major defect* is defined as follows: A defect which in some instances could affect the saleability or usability of a product.

A *critical defect* is defined as follows: A defect which would, in most instances, affect either the saleability or usefulness of the product.

These rules are only a guide to the definition of what constitutes either a minor, major or critical defect. Each category is further defined by actual examples which have been decided by a jury of competent people.

Depending on the nature of the job, the quality control examiner pulls a sheet from each press at intervals of from once every 15 minutes to once every hour.

Upon the completion of a job, the sheets which were pulled by the examiner are rolled, identified and stored for a period of three months in bins located beneath the quality examining tables.

At the end of a week, a weekly quality report is prepared by summarizing the data on the individual job cards. This is distributed to supervision and management. The figure obtained is further adjusted to compensate for differences in inspection severity by application of what is called the Inspection Severity Ratio. This adjustment is necessary to compensate for differences between inspectors and in order to maintain a consistency over extended periods of time.

The results as shown on the weekly quality reports are then graphed by individual press on a weekly basis and used to determine the effectiveness of the quality control program and the general process trends.

Specialized surveillance of color. Jobs are initially okayed by visual inspection and evaluation in comparison to progs and customers' sam-

ples. This is performed at the press by people assigned and trained for this specific task.

Wet ink-film thickness measurements are made with the aid of reflection densitometers. Two modified Welch Densichron instruments are used. One instrument has been modified to read color deviation from the okayed density through specially designed masks of one-fourth inch or one-eighth inch diameter. This instrument can remember five different densities. In use, the desired density of each of five different colors can be set into the instrument and the density of succeeding sheets compared to it.

Readings are recorded on a color control data sheet and the resulting data is treated by the usual statistical quality control, control chart techniques.

This data is filed for use and reruns. The instrument can be set-up for the same densities at a later date from standardization data which is also recorded.

'Memo-Densitometer'

A more recent instrument which was completed less than a year ago is known as a "Memo-Densitometer." It is an instrument capable of storing up to 40 different ink film densities at one time. By means of a push button located on the search-head, the operator can select in sequence each of the 40 different densities stored in the instrument. Instrument readings are on a differential basis. The operator reads the instrument as so much deviation lighter or darker than the okayed or resirable density. With this instrument, we are one step closer to a true self-contained error detector.

Up to 10 different densities can be maintained across the press sheet for each of four colors, depending upon what is desired. A further advance design of this instrument is being worked on.

To review briefly: At Western, we make use of the control loop principle in the control of quality. Our operators and quality examiners perform the examination of output, com-

Litho Schools

Canada—Ryerson Institute of Technology.
School of Graphic Arts, 50 Gould St.,
Toronto, Ont., Canada.

Chicago—Chicago Lithographic Institute, 1611
W. Adams St., Chicago 12, Ill.

Cincinnati—Ohio Mechanics Institute, Cincin-
nati, Ohio.

Cleveland—Cleveland Lithographic Institute,
Inc., 1120 Chester Ave., Cleveland 14, Ohio.

Houston — Univ. of Houston, Cullen Blvd.,
Houston 4.

Los Angeles—Los Angeles Trade Technical
Junior College, 1646 S. Olive St., Los An-
geles 15, Calif.

Minneapolis—Dunwoody Industrial Institute,
818 Wayzata Blvd., Minneapolis 3, Minn.

Minneapolis Vocational High School, 1101
Third Ave. South, Minneapolis 4, Minn.

Nashville—Southern Institute of Graphic Arts,
1514 South St., Nashville, Tenn.

New York—New York Trade School. Litho-
graphic Department, 312 East 67th St., New
York, N. Y.

Manhattan School of Printing, 72 Warren
St., New York, N. Y.

Oklahoma—Oklahoma State Tech., Graphic
Arts Dept., Okmulgee, Okla.

Rochester—Rochester Institute of Technology
Dept. of Publishing & Printing, 65 Plymouth
Ave., South Rochester 8, N. Y.

Pasadena—City College, 1570 E. Colorado St.,
Pasadena, Cal.

Philadelphia — Murrell Dobbins Vocational
School, 22nd and Lehigh, Philadelphia, Pa.

Pittsburgh—Carnegie Institute of Technology
School of Printing Management, Pittsburgh.

San Francisco—City College of San Francisco.
Ocean and Phelan Aves., Graphic Arts De-
partment.

St. Louis—David Ranken, Jr., School of Me-
chanical Trades, 4431 Finney St., St. Louis 8,
Mo.

Vancouver—Clark College.

West Virginia—W. Va. Institute of Technology.
Montgomery, W. Va.

Trade Directory

Internatl. Assn. Pig House Craftsmen
P. E. Oldi, Exec. Sec'y.

Room 307; 411 Oak St., Cincinnati 2.

Lithographers and Printers National Association
Oscar Whitehouse, Exec. Dir.

1025 Connecticut Ave., N.W., Wash., D. C.

Lithographic Tech. Foundation

William H. Webber, Exec. Dir.

131 East 39th St., New York 16, N. Y.

National Assn. of Litho Clubs

Edward M. Harwood, Executive Sec.

430 S. Clark St., Chicago 5, Ill.

National Assoc. of Photo-Lithographers

Walter E. Soderstrom, Exec. V.P.

317 West 45th St., New York 36, N. Y.

National Metal Decorators Assoc., Inc.

James G. Smith, Secretary

P.O. Box 506, Crawfordsville, Ind.

Printing Industry of America

Bernard J. Taymans, Mgr.

5728 Connecticut Ave., N.W., Washington, D.C.

paring the product with the standard or okay to determine whether or not an error exists. We feel that we have good, competent craftsmen who are capable of making error correction in almost every instance.

Where our program perhaps differs or is perhaps unique is in the accent on regular and consistent quality feedback which is supplied on an hour by hour basis, on a daily basis, weekly, and on longer terms than that.

If there is one lesson that we have learned, it is this: When we lack control over quality—over waste, production, or anything else for that matter—we examine the situation to determine whether or not adequate error detection methods are present and adequate error correction is possible. If so, we invariably find that feedback is at fault.

We have discussed here the offset printing function only. I might add that the quality control of our other processes and operations is accomplished in much the same way, utilizing, wherever possible, the same forms and the same basic idea of the control loop.

Incoming Materials

An area in which we have had some measure of success has been in our attempt at the control of incoming materials. Keeping in mind, once more, the quality control loop, let us examine the program for the control of incoming materials at Western.

Whenever possible materials are purchased to written specifications. When the material is received it is checked by our laboratories to insure compliance with these specifications. The amount of inspection performed is dependent on our previous experience with each supplier. Obviously, inspection is time consuming

and expensive. Our efforts are directed toward keeping this to a minimum, preferably on a surveillance only basis, by the careful selection of reputable suppliers.

When difficulty with materials is encountered either in pre-production testing or during the production process, strong feedback procedures are set into motion. The method followed makes use of a written quality report sent to supplier and to manufacturer.

Again, where our efforts are perhaps unique, is in the strong emphasis on good, reliable *feedback* to suppliers. Similar reports are also sent to carriers if they are at fault.

I have talked only about the mechanics and tools of a quality control program. I have made no mention of a very vital factor inherent in the control of quality at Western. This factor is the establishment of a "Quality Attitude" on the part of our suppliers, our employees, our supervision and ourselves.

Previously, I discussed the elements necessary for a quality control loop. However, there can be a great difference in the speed of reaction of any given control loop, dependent *entirely* on people. If people are on their toes, interested and informed, alert and ambitious, the control loop will function swiftly and effectively. If they are lazy, disinterested and incapable of communicating with others, the control loop will be very sluggish. The immediate production foreman or supervisor can do much to create a quality attitude if he:

1. Provides quality conditions.
2. Provides quality methods.
3. Instructs the workers.
4. Follows-up quality.

At Western: "*The supervisor is responsible for the quality of work he supervises.*" ★

Author Wood answers the question "What is quality?" and "Why do we want to control quality in the graphic arts?"

Web-Offset:

PROS and CONS

TEN years ago there were only 10 to 18 web-offset presses in operation in the United States. Today there are over 200 with approximately 60 four-color presses. These statistics were revealed by Kenneth L. Wallace, staff sales service engineer for Kimberly-Clark Corp., at a conference for paper merchant sales personnel at the company's marketing center in Nee-nah, Wis., last month. Mr. Wallace discussed the advantages and disadvantages of web-offset printing.

The biggest advantage of web-offset is its high speed, according to Mr. Wallace. This process, he said, is capable of 20,000 to 25,000 impressions an hour, compared to 2,000 to 6,000 impressions an hour in a sheet-fed operation.

A second area where web-offset competes advantageously with other printing processes is the area of low paper costs, he stated. "Web-offset," he went on, "takes advantage of the lower pricing of rolls versus sheets, as well as the ability to use lighter weight papers. Paper saving may run from 10 to 15 percent."

"A third advantage is in the area of faster makeready. Here again one must consider two types of presses. A web-offset, printing a four-color job two sides at the same time, or using eight units of the press, can be made ready and produce acceptable copy in two hours.

"This compares with heat-set letterpress four-color printing which may require as much as one to two days to lock up all of the page size forms and register the press to the point where it is turning out commercially acceptable copy."



Kenneth L. Wallace

Complete Printing Job

A fourth advantage cited by Mr. Wallace is the fact that web-offset offers a complete printing job in one pass through the press. He pointed out that most presses are the blanket-to-blanket or perfecter type, where both sides of the web are printed simultaneously.

Another advantage of web-offset is that the process can deliver either sheets or folded signatures. Many of the presses are equipped with sheeting operations that will sheet at the end of the press at speeds of 12,000 to 14,000 sheets an hour. The advantage is that the job comes out complete and from that point needs only trimming or collating for binding into book or magazine form.

Finally, the web process has none of the problems common to sheet-fed printing in the area of dimensional stability of a sheet, the effects of temperature and relative humidity, feeding difficulties or delivery diffi-

culties because of curl, tail or hook.

Turning to the limitations of web-offset, he said, "One of the most important is that the lithographer is tied to the length of run that is economically feasible to put on the press. The minimum run seems to be shaping up at about 50,000 impressions or four or five hours of running time on the press."

Another limitation of web-offset is waste, according to Mr. Wallace. "At the present time," he said, "waste on web-offset, depending on whether you are running one-, two-, three- or four-color work, varies between 10 and 18 percent, compared with two or three percent for sheet-fed and eight to 10 percent on heat-set letterpress."

Fixed Cut-off

Another disadvantage, he commented, is that web lithographers are faced with a fixed cut-off on web-offset because the cylinder size remains constant. If there is a 22-inch cut-off it cannot be varied, he said, pointing out that only the width of the paper can be varied.

The fourth limitation is that the grain of the paper always travels in the direction of the web. "This means, then, that the lithographer must watch the layout of the jobs to get the benefit of the strongest directional strength of the paper in the folding operations," he said. "This may often be a deciding factor as to whether a job will go on web, because occasionally the page size will not allow you to change the layout of the web. This may especially be a problem if lightweight paper is being used.

"The quality of web-offset can be equal to sheet-fed offset," he declared. "Generally, however, it is not, because one of the benefits of web-offset is higher production, and to get high production some printing quality normally is sacrificed."

"I do not want to paint a picture that depicts web as taking over all sheet-fed printing," Mr. Wallace concluded. "The web process has its limitations and there is now and will continue to be a place for each. Web-offset can, however, mean volume business."★

READERS:

Are you taking full advantage of your lithographic magazine?

THE staff of *Modern Lithography* has been trying, in several important ways, to make the pages of your magazine more valuable to you. Increased in-person coverage of litho club and trade association meetings has been one way. Interpretative articles on subjects of vital interest to you is another. That's the reason for our recent series on presensitized plates, three-color direct separation, and visits to typical litho shops and for our expanded coverage of the litho news in all parts of the United States and foreign countries.

Our climbing circulation figures indicate your appreciation of our efforts. But are you taking *full* advantage of your lithographic magazine? In past months, many of you have availed yourself of the services of our two regular columnists, *Frank Arbolino* (Press Clinic) and *Herbert P. Paschel* (Photographic Clinic). The purpose of this page is to remind you that if you have a troublesome problem regarding press or camera, these specialists are ready to help you solve it. If you are a subscriber to ML and have a question why not jot it down on the coupon below and send it along to us? We'll be glad to help you, and the service is free.

MODERN LITHOGRAPHY

Box 31, Caldwell, N. J.

☐ Mr. Arbolino
(Press)

☐ Mr. Paschel
(Photography)

My Question: _____

(Questions will not be answered by mail, but in an early issue of *Modern Lithography*)

((Only your initials will be used))

Name

Company

Address



No Printing Week would be complete without a pretty girl. Here Bill Retchin, chairman of the Greater Los Angeles PW committee helps TV star Connie Stevens display poster. In Los Angeles, culmination of the celebration will be the annual banquet, January 20, at Hollywood's Moulin Rouge. A nationally prominent member of the industry will be honored with the Benjamin Franklin Award.

Printing Week Programs Under Way Around U. S.

LITHOGRAPHERS and Litho Clubs will take part in a good number of the Printing Week (Jan. 15-21) celebrations in various parts of the country this month. Most of the impetus for local observances comes from the Craftsmen clubs, but in many cities lithographers play a big part. Center of attention this year is TV star Connie Stevens, who is Miss Printing Week. Details from some of the cities follow:

Boston

The Boston Litho Club will present its third annual Lithographic Workshop, a seminar on lithography, at the Boston University School of Public Relations, 640 Commonwealth

Ave. during Printing Week, or Printing and Publishing Week, as it is known in this area.

The program has drawn big attendances during the past two years, and a record crowd is expected this month.

Local beauty queen, who will reign during the P & P Week, is Margaret Welch, a technical illustrator for Fine Impressions, Inc., who was chosen Miss Boston Litho Club. She succeeds Miss Charlotte E. Canzano, receptionist at Acme Printing Co., Everett.

Cleveland

Once again Printing Week will be observed in Cleveland with a great deal of attention focused on the in-

dustry—exhibits, queens, tours, banquets, balloons and other promotions.

Feature of the Saturday preceding the week will be the magazine supplement in the Saturday *TV Week Magazine* to be published by the *Cleveland Plain Dealer* on Jan. 14. It will describe the industry, and carry advertisements, as in past years.

The Women's Advertising Club will again sponsor the "Prints Charming" contest. Any woman may sponsor a candidate (male) for the competition. The winner will be crowned Jan. 10 at the PW dinner in the Manger Hotel, along with the PW queen.

St. Louis

Charles Van Ravenswaay, director of the Missouri Historical Society in St. Louis will address the St. Louis Club of Printing House Craftsmen and guests January 18 in observance of Printing Week.

The society has one of the largest collections of old printing samples, including sheet music printed offset from 1860 to 1900, as well as the first book printed west of the Mississippi.

There will also be several plant visits during the week and competitive programs for student printers in the area trade schools.

Detroit

Detroit's Printing Week programs will be held in Cobo Hall, Dale Hughes, president of the Detroit Printing Week Organization, Inc. announced. "Present plans for Detroit Printing Week will make it the largest, most diversified graphic arts and advertising exposition ever held in Detroit," he said.

"In addition to its regular yearly features, Detroit Printing Week will offer several new services and events which will broaden its scope, and make it of paramount interest to all buyers of printing, whether in industry, advertising agencies, or in retail outlets," he added.

Among the innovations will be the presentation of special awards, in several categories, for outstanding "Jobs

of the Year" produced in Detroit.

Besides the yearly scholarship award, the PW organization is working towards the establishment of a Junior Achievement Printing Co. to further stimulate the interest of young people in graphic arts fields. The DPWO also intends to publish a cross-indexed directory of all advertising and graphic arts services available in the Detroit area.

The directory will be a comprehensive reference in which the buyer of printing will be able to find all of the specific services he needs to get a job done.

One of the attractions of the PW exposition will be a demonstration, staged at regular intervals, showing the development of a lithographic job from rough copy to finished print. The creative aspects of the graphic arts field will be stressed with exhibits from art studios, commercial photographers, printers and designers as well as displays of modern equipment.

A series of seminars on various phases of advertising and printing will be held in conjunction with the exposition.

Supplementing the business side of Detroit Printing Week will be a series of social events including a cocktail party, a dinner-dance, and the weekly Adcraft luncheon.

Philadelphia

The Poor Richard Club of Philadelphia will award its gold medal of achievement to William S. Vaughn, president of Eastman Kodak Company, on Jan. 17 at ceremonies commemorating the 255th anniversary of Benjamin Franklin's birth.

Gold Medalist: A. Edward Morgan, (left), president of Poor Richard Club of Philadelphia, discusses Franklin Day plans with William S. Vaughn, president of Eastman Kodak Company. Mr. Vaughn will be honored as Gold Medalist by the Club.



A. Edward Morgan, Poor Richard president, said Mr. Vaughn will be honored as the chief executive of a leading American corporation.

The club's recipient list has included General Eisenhower, Crawford H. Greenewalt of Du Pont and Henry Ford II.

"It is especially appropriate for Poor Richard to honor the leader of a company whose name is synonymous with progress in the communication arts," Mr. Morgan said. "Mr. Vaughn's company is well recognized for photographic achievement that has contributed so much to publishing, graphic arts, and to human progress and enjoyment."

Mr. Vaughn, associated with Eastman Kodak since 1928, is a native of Kansas City, Mo. and a Phi Beta Kappa graduate of Vanderbilt University and Rice Institute. He was a Rhodes Scholar at Oxford University. He became chief executive officer of Kodak last May.

Kansas City

The Kansas City Craftsmen's Club, Printing Industries Association, and the Printing Executives Club are planning a big program for Printing Week.

The graphic arts Man-of-the-Year will be named at a special dinner. It is expected that at least 400 persons will attend the dinner.

J. Ellsworth Kenagy, Burd & Fletcher Co., is chairman of the Craftsmen's committee on arrangements. Kenneth Johnson, Drovers Telegram, is chairman of the committee representing the Printing Executives Club.

Chicago

The annual awards banquet of the Education Council of the Graphic Arts Industry on Jan. 17, will highlight Printing Week, at the Furniture Club, 666 Lake Shore Drive. Charles H. Percy, president of Bell & Howell, will be the principal speaker.

The Outstanding Service Award of the Education Council will be presented to George S. Dively, president and Chairman of the Board,



George S. Dively

Harris-Intertype Corp., who will be honored for his "vision and leadership in translating into action numerous projects dealing with the educational progress of the printing and publishing industry."

The PW banquet will be preceded by a cocktail hour and followed by dancing.

Steering committee for the function is Joseph McConaughy (Harris-Seybold), president of the Graphic Arts Promotional Council of Greater Chicago; Dean Marsters (Wallace Press), chairman of banquet arrangements; James X. Ryan (Printing Industry of Illinois), secretary-treasurer; and Sam Burt, managing director of the Education Council.

New York

An expense-paid vacation for two people in the Virgin Islands will be awarded to some fortunate buyer of printing in the New York metropolitan area as a feature of Printing Week in New York.

The recipient of the week's stay at the Virgin Isle Hilton, plus transportation by Pan American jet clipper, will be selected from among the printing industry's customers who visit the 19th Exhibition of Printing. The exhibition will be held Jan. 16-19, 1961 at the Hotel Commodore under sponsorship of the New York Employing Printers Association.

Visitors to the exhibition will be
(Continued on Page 117)

Three important areas and 10 tips for

Profit Improvement

By K. L. Warren

Vice President
Packaged Products Co., Inc.

SUCCESSFUL management of a printing plant in today's highly competitive and complex economic situation is no easy task—and requires the utmost in executive ability and full utilization of all "management tools" available.

The basic purpose of business enterprise is to produce a profit for its owners. The maximum profit over the long term results from a proper balance between industrial economies and effective market penetration. This is another way of saying that the three ways to increase profits are:

1. Increase sales price and maintain volume.
2. Increase volume and maintain sales price.
3. Decrease costs.

—or any combination of these three.

Spencer Tucker recently wrote this about management controls:

"Operating a manufacturing business is actually a succession of decision-making against a background of changing data. Every second in a company, on every square inch of company property, events, facts, acts, circumstances and data of some kind are being born. Some of these are visible; others are hidden. The events cause different impacts on each other and influence trends, affect costs and profits, and, unpiloted, can change the position of the company. Events are also interrelated, each with the other.

"Managing or profit-making depends on getting vital facts,

weighing them to give each additional meaning, and then interrelating them to test their impacts elsewhere in the company. Only then can action be swift, secure and objective.

"Today, to an extent never before attained, people have great control over what concerns them. They can take pills for keeping awake, for inducing sleep, for decreasing bodily weight, for keeping happy, for improving memory. Unfortunately though, no one has yet invented an oral palliative which will produce optimum and consistent profits and a sound growth path.

"The only one who doesn't have to worry about this goal of business enterprise is the man who produces something everyone wants and nobody else can make. The day has long passed when a manager could make a reasonably safe judgment from the single facts normally available to him."

Now I wish to discuss profit improvement through management control—to enumerate some of the tools that the "profit manager" has available for the making of effective and income-producing decisions.

Nothing Replaces Management

At the outset it should be emphasized that nothing can take the place of competent and capable management. The judgment factor is very important in the success of our enterprise—the ability to make the right decision at the right time based

on the facts available. However, the ability of management to manage can be greatly improved by use of various types of management controls.

My firm, which is engaged in the manufacture of transparent film packaging materials, labels, and also in letterpress and offset printing, has followed a systematic program over the past few years aimed at more effective utilization of management controls. While we have not yet perfected the use of many of the programs I am about to describe, we are already realizing the benefits from those in operation.

For example, for the fiscal year ended April 30, 1955, our sales were \$2,382,000. For the fiscal year ended July 2, 1960, our sales were \$5,044,000; an increase of 112 per cent over the past six years. At the same time, net profit after taxes increased from \$62,000 to \$189,000; an increase of 205 per cent. But we still have a long way to go, because our net return on sales, and on investment (although somewhat better than the average for the printing industry), is still considerably below that for the highest profit companies in the industry.

Phases of Controls

I would like to present and explain briefly, 10 phases of management controls for profit improvement—not necessarily in order of importance:

1. Control through adequate, effective, and timely financial reports.

Speaking of financial reports, I am covering the entire range of profit and loss statements, balance

From an address delivered at the 28th National Convention in Chicago.

sheets, and various subsidiary reports such as billings, inventories, etc. In order for these reports to be valuable to management for assistance in arriving at proper decisions, they must be available as soon as possible after the events have taken place, they must be as complete as possible to bring out the essential information needed, and they should be prepared in such a way as to point out the exceptional situations which require action or which indicate that certain phases are not going according to plan.

2. Control through adequate system for determining accurate product costs and profits:

A good cost accounting system can be utilized in the development of product costs which will determine the relative profitability of the different product lines in which you are engaged.

3. Control through effective cost estimating procedures.

This I believe is self-evident, since using accurate and up-to-date cost rates with proper planning and scheduling of jobs, will enable you to quote prices to customers so that the orders you obtain will be profitable. Of course, if in using your cost rates and cost estimates with an adequate profit mark-up, you fail to get orders, or at least sufficient orders to keep your plant running, then you have another problem on your hands.

4. Control of sales expense through effective incentive plan.

The ideal incentive plan would be one that would encourage increased volume in profitable business together with reward for reduction of sales and distribution costs. The American Management Association has published the "Salesman's Compensation Report" as part of its regular Executive Compensation Service. Included in a recent edition was an incentive plan described as "Expense Quota Bonus Plan," which attempts to accomplish this purpose.

It seems to me that some type of salesman's incentive plan based on distributing a percentage of the standard profit derived on orders would

serve both as an incentive to increase volume and also to increase the profitability of orders received.

5. Control through organized cost reduction program.

The main thing I wish to emphasize here is that any cost reduction program should not be an across-the-board reduction, but should be in charge of a specific individual and care used in reducing costs which will in the long term maximize profits. In other words, a drastic cost reduction program could very well be the killing of the goose which lays the golden egg.

6. Control through establishment of manufacturing standards for measuring performance.

Most phases of the printing operation lend themselves to the establishment of standards. Here again, an adequate reporting system must be set up so production supervisors are kept currently informed regarding their performance in relation to the standards.

7. Control through elimination of profit leaks.

There is an excellent pamphlet which has been published by *Factory Management & Maintenance* called "Profit Leaks—How to Find Them and Plug Them." This publication includes a section called "Planning for Profits with a Minimum Package of Controls." The opening paragraph states:

"Good controls are not a substitute for good management. They are a part of good management. The idea of any control system is to organize and present information so that the managers of a company can tell in a hurry what actions they should take."

8. Control through equipment improvement and capital expenditure budget.

The old axiom, "You have to spend money to make money" is just as true today as it was when first stated many decades ago. In today's competitive economy, the most modern high speed equipment is necessary to stay in business on a profitable basis.

For example, I just received a letter last week from a leading manufacturer of flexographic presses who stated that their best press in 1950 printed at a speed of 200 feet per minute. Today, they are manufacturing this same size press to print from 700 to 1,000 feet per minute. But of course they are also getting three times as much for the press!

A capital expenditure authorization system which will permit careful review of expenditures before they are made to determine the profitability pay-out, would be of greatest assistance to any business in making discriminating purchases of equipment.

9. Control through new product development.

Recently I listened to an address by a representative of one of the leading management consulting firms who explained the life cycle of a new product. He indicated that in the initial state of introduction very little profit was realized because of developmental costs.

However, if the product is successful, there is a period of high profitability lasting perhaps for one to three years after which time the competitors and imitators start grabbing a share of the market, probably at a reduced price, so that the profitability gradually decreases. Depending on the type of product, the life cycle of a new product on a profitable basis may range from one year up to possibly ten years.

This emphasizes the need of continuous introduction of new products in order to take advantage of the initial high profit stage to offset the lower profits from the older products which are in a declining phase. In the case of design or style changes, the life cycle is even shorter.

10. Control through responsibility accounting and departmental budgets.

While I have placed this at the bottom of the list, I consider it one of the most important management tools. A comprehensive responsibility accounting system of course incorporates many of the preceding controls.

(Continued on Page 117)

*The foil printing picture has changed
rapidly in the past five years—
now litho is very much in the race*

LITHO *on* FOIL

By *James T. Trousdale*
Anaconda Aluminum Company

SOME 20 years ago lithographers were reproducing commercial jobs on laminated aluminum foil sheets, not without problems, but nevertheless they were able to reproduce a saleable job. Some beverage labels and cigar-box overwraps produced this way remain as museum pieces today, for the lithographer found himself in a position of working with a material about which he knew nothing, and the aluminum foil producer and laminator knew little.

From that time until approximately five years ago, an occasional lithographer made an attempt at working with foil, only to be plagued with a multitude of problems. The stock was too slick to be handled properly, inks would offset to the back of the next sheet, or if the sheets were racked individually, the inks took forever to dry, all of which resulted in the lithographic industry as a whole developing an extremely dim view of the newcomer to the packaging field—aluminum foil.

Why all this interest in aluminum foil? Foil has proved itself to be one of the most versatile of packaging materials. In food packaging, what could be more convenient than a container in which food can be frozen, shipped, stored, sold, prepared, served and eaten from, then thrown away? This is the type of marketing made possible by aluminum foil, and it is this type of convenience which made

possible shipment of approximately 220,000,000 pounds of foil to converters in 1959, an increase of 47 percent in the past five years.

However, the success of foil as a packaging material is for the most part dependent upon the success of the graphic arts industry in overcoming the problems in handling it on production equipment.

Foil stocks were first handled satisfactorily by letterpress, which was followed in rapid succession by flexography, gravure and silk screen. Certain few lithographers began running foil, however, the quality of reproduction they were able to obtain left much to be desired.

The aluminum foil stocks, which at first created their own jobs, began making serious inroads into the packaging field, and lithographers soon found themselves losing jobs to other forms of printing on foil. Interest began to mount, and it became apparent that a combined effort by foil producers and laminators as well as paper, ink and adhesive manufacturers along with the lithographers, was necessary to fill the very serious gap in foil printing left by the lithographer.

Progress Since '55

About five years ago this work was begun, and in this relatively short period of time, amazing strides have been taken which now place the lithographers abreast the other media in reproduction on aluminum foil. Today the lithographer, working with

standard equipment, can handle a sheet of laminated aluminum foil with a minimum of difficulty and reproduce the quality demanded by even the most exacting customer.

The advantage of any one type of printing over another on foil, as in paper printing, is determined primarily by the size and the type of the job. This applies to lithographic reproduction on foil, for it is by nature practical and economical on small or moderate size runs.

Also, being capable of excellent reproduction, to the extent of full color photographs, there is no limitation as to the type of work which may be considered, and unrelated jobs can be grouped on the same plate if necessary. Plate costs are moderate and sheet sizes of up to 52 x 76" are possible, something outside the scope of gravure or flexography.

Lithography on foil may be accomplished on any weight of laminated stock from 25-pound paper-back to heavy weight board stocks. Generally, 45-pound and up, is preferred for sheet-fed equipment, whereas web-fed can use 25-pound and up. Stocks in weights lighter than 45-pound are being satisfactorily handled on sheet fed presses, however there are some special considerations involved which will be discussed later.

Coating for Litho

It is generally agreed that the use of a nitrocellulose or vinyl type coating on the surface of the foil is most satisfactory for lithographic re-

From an address at the recent NAPL convention in Chicago.

production. Either coating will print satisfactorily, and the choice is primarily one of end use application, the vinyl having superior scuff and solvent resistance, and the nitrocellulose being available in a wider range of colors and allowing more flexibility in the choice of inks. These coatings assist in the drying of the oil type inks, allowing the ink to amalgamate with the coating.

There is a common misconception that the foil coatings are used to cover the film of rolling oils left on the surface of the metal. Laminated foils, of the type suitable for lithographic reproduction, are manufactured from dead soft or annealed metal which has all of these oils removed during the annealing process. However, during the laminating process it is necessary to pass the paper-foil web through a drying tunnel, after which the web is rewound.

During this operation, the foil surface is brought into contact with the paper or paperboard, causing contamination in the form of a polarity on the foil. This condition renders it virtually impossible to obtain adequate ink adhesion without the use of coating on the surface.

Nitrocellulose or vinyl type lacquer coatings also assist, where areas of unprinted foil are exposed in the final copy, to prevent finger marking. Where ink coverage is complete, some lithographers have worked satisfactorily on a treated or wash-coated surface, and in some instances, this can have advantages in performance of the stock on the press.

It has been noted that the affinity of a treated or wash-coated foil surface for the blanket of the press is somewhat less than for the lacquered surfaces. This can be an important consideration in the running of light weight stocks where mechanical curl is a factor. There are other facets involved, but this one should not be overlooked.

The direction of the grain in the sheets is not too important in the heavier weight stocks, however, consideration should be given to the ability of the stock to bend around the cylinders, and grain should be selected accordingly. In the lighter

weight paper backed stocks, it is desirable to cut the sheets so that the wrap around the rollers conforms to the natural curl tendency of the paper. This can prevent the phenomenon known as "fanning," particularly severe in foil, for the aluminum has so little recovery ability that any dimensional distortion will remain.

As in lithographing on paper, foil sheets should be laid and stored only on flat surfaces. Rough handling should be avoided and the edges of stacked sheets should not be bruised or dented. Some lithographers feel that a sheeted stock is more easily handled if there is from $\frac{1}{4}$ to $\frac{1}{2}$ " of free paper left on the leading or gripper edge of the sheet. This they feel has a particular advantage on closer register and multicolor work because it makes the sheet less susceptible to curling, bending or nicking.

Proper gripper and delivery control can make handling of sheets, with or without a paper lip feasible, so this becomes a matter of personal choice.

Squaring the Sheets

All lithographers require sheets to be squared at least one side and one end, and some specify trimmed and squared four sides. In either event, accuracy of cutting is important. For the lithographer who buys untrimmed sheets and squares them himself, the handling of the sheets during this operation can be most critical.

Sheets should be placed in the guillotine cutter foil side down in lifts of 100 to 250, depending on the size of the sheet and weight of stock. The foil sheets should be protected both top and bottom with a sheet of chipboard, or other padding material, so as to prevent excessive indenting by the pressure bar. Occasional lubrication of the cutter blade with a light application of thin clear oil will prevent excessive wear.

Paper backings for foil laminated sheets are specifically designed to give maximum smoothness to the foil surface. It is often false economy to down grade the backing sheet, since the coarser or rougher the grade of paper, the duller and more uneven the foil surface.

In the reproduction of halftones and fine screen work, it is important to work on as smooth a surface as possible in order to accomplish reproduction with a minimum of ink and pressure. Some attempts at running light weight foil stocks have been made through the use of increased pressure. Generally this will result in loss of detail and registration difficulties. Excessive pressures, in the running of foil stocks, should be avoided.

Sheet-fed lithographic presses, using single-sheet or stream-feeding mechanisms, handle foil with equal ease. Combers are used in almost all instances. However, it is best to coat the combers so as to have no hard abrasive surfaces in contact with the foil. A minimum of pressure on the combers is desirable and where possible, the layout should be such that the comber marks are in the trim margins.

Since foil paper laminations have one component completely impervious to moisture, curl can occur during storage if the atmosphere tends to cause moisture pickup or loss in the paper. As in paper stocks, foil laminated sheets should be allowed to come to press room temperature conditions before processing is attempted to prevent distortion to the sheet through internal moisture condensation.

Foil stocks are supplied wrapped in moisture proof paper and have been stabilized, during their manufacture, to optimum moisture content, so as to minimize curl tendencies.

It is usually best to cut the steel banding on the skid or pallet when received, so as to render conditioning more rapid. However, under no conditions should the lithographer remove the moisture proof wrappers until ready for use. For those lithographers who have temperature and humidity controlled press rooms, the moisture content of the foil laminated sheet may be stabilized to those conditions.

Although curling may be caused by a number of factors, the most troublesome and often times the most difficult to control, is moisture curl. As previously mentioned, the foil,

acting as a moisture vapor barrier, results in a sheet capable of breathing one side only. Consequently, placing a sheet stabilized for any given set of conditions in an atmosphere of lower humidity will result in a loss of moisture by the sheet, contracting of the paper fibers and resultant curl, paper to paper. Conversely, exposure to higher humidity results in moisture pick-up by the sheet, swelling of the paper fibers and resultant curl, foil to foil.

Since, under normal conditions, no single sheet of stock is exposed for any great length of time, it remains for the foil laminator to produce a stock which can, to some degree, deter the moisture sensitivity of the paper side. This can be done with the coated one side lithos by laminating the foil to the uncoated side, thus creating a partial barrier on the paper side, with subsequent reduction in curl.

Lightweight Sheets

To the lithographer however, this is not the complete answer, for in the processing of light weight (301 pound) sheets, there is a decided tendency for the foil surface to adhere to the surface of the blanket, introducing what is known as mechanical curl; in this instance, paper to paper. It has been mentioned that the use of a treated or wash coated foil surface can lessen this tendency. In addition, there are several other important considerations worthy of mention.

It is often desirable to leave an unprinted tail on the trailing edge of the sheet so that there is a minimum tendency for the foil to adhere to the blanket. This will prevent, to a considerable degree, severe end curl.

Through the use of additional quantities of linseed oil balanced with dryers, the inks may be softened so as to reduce the degree of tack. This is particularly important where ink coverage is heavy. The softening of inks is no job to be undertaken by the amateur, for over-softening can result in scumming or lack of drying. Consult your ink supplier before undertaking any revision of inks.

An additional consideration is ink pigmentation, which should be kept

at a maximum in order that color depths may be achieved with a minimum of ink film. This may seem to be somewhat contradictory. However, a happy medium may be achieved and the thinner ink film will result, not only in less mechanical curl, but in better drying as well.

Recently there has been some experimentation with the use of harder blankets of the Buna and Neoprene type. Foil inks for lithographic printing, because of the more rapid drying characteristics necessary, are composed of more active ingredients which are somewhat injurious to normal rubber blankets. This may cause excessive swelling and softening of the blanket, with the result that the blanket itself then becomes sticky and release of the foil surface becomes more difficult.

Treating of blankets with sulphur compounds to restore or improve hardness is of less avail in the running of foil jobs and can eventually result in serious damage to the blanket itself.

It is advantageous that the litho plates carry as little water as possible. The foil surface, being nonabsorbent, retains whatever moisture may be transferred to it by the blanket. This can become a particularly important factor in running foil stock on a multicolor press. Excessive moisture on the plate will tend to leave a slight film of moisture on the unprinted foil surface. The second color is applied on the damp surface, resulting in non-drying of the ink, lack of adhesion or both. It also follows that the less water used, the thinner the ink film, a decided advantage.

The first attempts at lithographing on foil used deep-etch zinc plates made exactly as for printing on paper. They gave excellent results and to a great extent are still being used. However, copperized aluminum plates were found to be an improvement. Trimetal or Lithure plates are still another improvement. A recent development in the Lithure plate promises to do much to reduce the cost as well as plate breakage due to repeated bending while putting on and taking off plates. Aluminum plates are not recommended for foil.

Due to the excellent trapping characteristics of foil surfaces, there is practically no limitation as to the screen fineness that may be employed. Screen sizes of 130 to 150 are not uncommon in foil work.

Design Important

Although it is not always possible to have a voice in the designing of a particular job on foil, it is highly desirable that the designer know some of the potentials as well as the limitations of working on foil, and that these be related as nearly as possible to the equipment on which the job is to be run.

Both transparent and opaque colors may be laid on foil (black and white of course must be opaque). Transparent colors printed directly on foil retain their natural illumination, whereas opaque colors appear much the same as they would on paper stock.

Two colors—both transparent, or one transparent over one opaque—may be combined to create a third color, thus making possible a vivid three-color effect.

Fine copy should not be reproduced directly on foil because the high reflectivity of the foil surface will make it far too difficult to read.

Restraint is necessary in using plain foil areas. Natural foil can be made an integral part of a design if it is skillfully broken up with opaque and transparent color elements. Interest can be focused on a particular part of a design by outlining an opaque area with natural foil. For instance, opaque printed brand names can be pointed up effectively by outlining the letters with natural foil.

Where white and gold are to be printed on the same label, should they overlap, a buff color results; consequently it is desirable to leave a silver line between the two colors to avoid having a buff edge.

In areas to be printed white, it was at one time common practice to apply two passes of white to obtain the desired opacity; however, recent ink developments have rendered this unnecessary. Most lithographers working on foil today use only silver stock. This eliminates the problem of base

colors, such as gold, bleeding through overprinted areas. This condition was particularly difficult with whites over gold. White over the silver foil will pick up a blue gray cast from the metal, giving it a whiter appearance.

Areas to be covered in transparent colors such as gold, may be satisfactorily produced by the lithographer. Such advances have been made in transparent litho inks, that results on the transparent colors are equally as good as that which can be accomplished by the foil laminator.

The design of a foil carton can have a very definite effect on the quality, and the price of the base stock necessary. If in the design, an overall pattern can be developed by either embossing or printing, the smoothness need not be the prime consideration it is where large plain areas are present.

In many instances it is desirable and sometimes essential that the finished piece be overcoated with a clear coat so as to protect the printed surface from scuffing or abrasion. This, then, should be taken into consideration with regard to design insofar as equipment facilities are concerned.

Handling Light Forms

Foil lithographing of extremely light forms (1-20 per cent) is often plagued by extreme ink emulsification problems. The large nonprinting area on the plate causes the inks to become rapidly saturated with water.

To overcome this problem, as in lithographing on paper, the first step should be to reduce or completely eliminate the acid content of the dampening solution. In addition to this, the use of fountain dryers, composed of water-soluble cobalt solutions, have proved most advantageous.

As the ink becomes emulsified, drier is added, and the drying character of the ink is not basically changed. Bimetal or Trimetal plates, carrying less water, have also been found to be advantageous. To prevent the accumulation of water in the ink fountain and on the rollers, which would cause drying and adhesion problems, periodic press cleaning is desirable.

On standard litho presses there is no drying equipment. As a result, dry-offset sprays have been used on most of the commercial jobs to date. Sometimes the use of this spray is not desirable as it has a tendency to impart a rough or grainy feel to the finished printed surface. Also these sprays can result in loss of lustre on transparent colored areas.

To overcome this problem, some work has been done with the use of auxiliary drying equipment in the form of banks of infra red lamps at the delivery end of the press. Such a heat source, used in conjunction with a blast of air, can result in a very effective drying of inks, and can insure large volume work at top machine speeds. Proper use of the air stream can also assist in reduction of mechanical curling problems.

Sheets delivered from a litho press are stacked with the help of lifts. Sheets have been stacked from 500 to 2,000 high, depending upon the weight of the stock, the type of ink used, the size of the printed area, the thickness of ink film, and the surface finish of the back of the sheet.

Recently there have been a number of production runs on web-fed litho equipment utilizing laminated aluminum foil stocks. Processing of four to six colors in one pass has been found to be practical, and the results obtained have been most gratifying.

Heat Drying

On most web presses, heat drying facilities are available, or can be readily employed, rendering impression speeds of 7,500 per hour practical and satisfactory. Heat drying need not be accomplished until the stock leaves the last station, but should be done before rewinding or sheeting. Sheeting is more critical, but full operating speeds can be maintained. Inks generally exhibit heat-drying characteristics with hard-drying properties to give proper toughness and scratch resistance. Blankets and rollers should be of a nonpourous type normally used with heat set inks.

White underlays for process illustrations may be applied at the first station without fear of impairing the trapping characteristics of subsequent colors. Wherever possible, it is best to allow as much time lapse as possible between the white laydown and subsequent overprinting, by running transparent or other colors to be applied directly over the foil, prior to process colors over the white.

Since it is sometimes necessary to carry a much heavier film of white than is normally run on offset presses, serious piling of the white might be expected; however, this has never materialized as a problem.

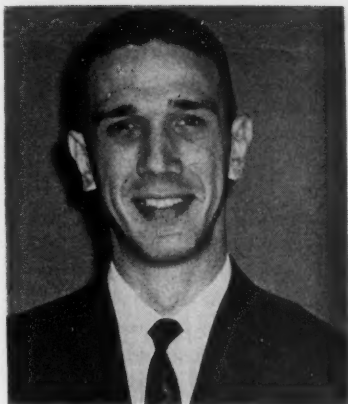
Litho Competitive

The economics of lithographic printing on foil are such that for the most part the lithographer may compete very actively with other printing methods assuming the normal criteria of run size are observed, lower plate cost and more rapid makeready being primary advantages.

It has been found that the lithographer by working with slightly heavier stock weights (45-pound stock in place of 30-pound) to ease his production problems and increase his speed, can produce competitively the jobs currently being run at the lower limit of gravure capacities.

This provides additional advantages to the end user, allowing him smaller quantity minimums and the option of copy changes without excessive plate cost. Here again, the choice of backing stock and the foil surface treatment, can be important considerations.

Satisfactory lithographic printing on foil is dependent upon a number of very important factors, such as the consideration of the right type of stock, the right foil surface for the particular job in question as well as inks and handling precautions. It should be remembered, however, that most foil jobs being run today are being handled on regular lithographic equipment with the only special consideration being that of the use of foil inks. Remember as well, you are not printing directly on the aluminum foil, but rather on an ink receptive foil coating. ★



New Product Review:

A Look at Color Scanners

By John M. Lupo, Jr.

Di-Noc Chemical Arts, Inc.

IT SEEMS odd to think of scanners today as a relatively new invention, when actually the history of scanning dates back to the middle thirties, when the original idea was conceived by Alexander Murray. World War II interrupted the continuance of this project but immediately after the war the research laboratories of Time Inc., resumed development of the basic idea.

In 1949, *Fortune* and *Life* magazines were the first to use the principles of electronic color scanning in the production of their editorial pages. It was not until 1950 however, that Time Inc., through its wholly owned subsidiary, PDI (Printing Developments Inc.) made the color scanner available to the printing industry for general commercial use.

Since that time the progress and acceptance of color scanning has been remarkable. At present there are 10 companies that are either manufacturing or conducting research on color scanners. The most recent introduction to the field of electronic scanners is the Scan-A-Color manufactured by Fairchild Graphic Equipment Co., Plainview, N. Y. There are two installations of the Scan-A-Color in use today and a number of other units in the advanced machine production stage. Before discussing the Scan-A-Color, it might be advisable to discuss the purpose, use and operation of electronic scanners.

Purpose and Use of Scanners

Electronic color scanners are used to separate original colored copy into

ML this month inaugurates a new column devoted to an analysis of new products and processes in lithography. Mr. Lupo will deal sometimes with an individual product; sometimes with a group of related products or processes. Suggestions for future columns will be welcomed by the author, who may be addressed c/o Modern Lithography, Box 31, Caldwell, N. J.

the three or four printing colors of yellow, magenta (process red), cyan (process blue) and black. Depending on their manufacture, these machines will accept transparencies, reflection copy or uncorrected continuous tone negatives, and will yield color separations on photographic film or printing plates. The basic purpose of the scanners, however, is not only to separate color but to correct these separations electronically for the defi-

ciencies of the printing ink, tone requirements of the halftone process, contrast, color saturation, undercolor removal, etc.

Elements of a Scanner

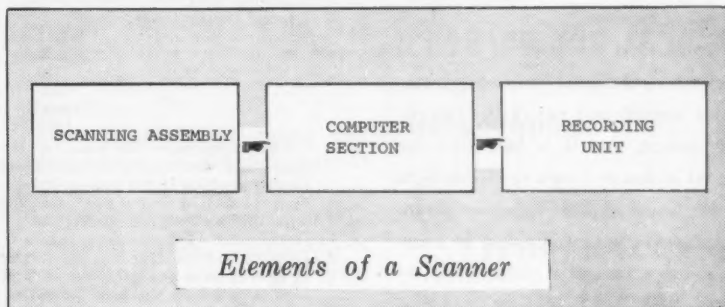
There are three basic elements in a color scanner:

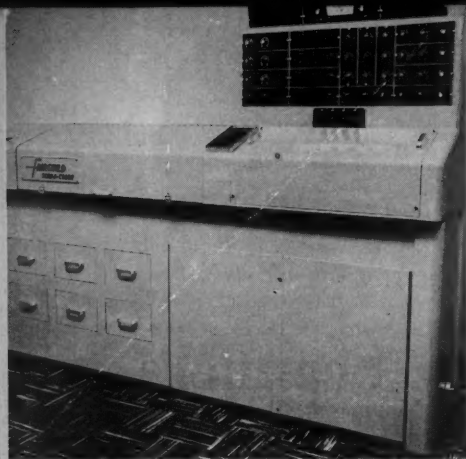
1. The scanning assembly from which the machine gets its name,
2. The control or computer section, and
3. The recording system.

The scanning assembly (Figure 1) contains what might be considered as the copyboard of the scanner, for it accepts the original copy.

A beam of light scans or passes over the original copy in a series of lines. Color scanners range from 250 to 1,250 scan lines per inch, so that the width of an individual scan line can be anywhere from 1/250 of an inch to 1/1250 of an inch. During the scanning operation, the light from the original copy is split into three light beams which pass through the

Fig. 1. The scanning assembly scans and separates the original copy into the printing colors. It also changes light into an electrical signal. The computer section corrects the signal for the many variables of color reproduction. The recording unit changes the electrical signal back to visible light and exposure is made on photographic film.





Fairchild Scan-A-Color

conventional separation filters of red, green and blue. The separated light is then changed into electrical energy or signals so that other electronic functions can be performed.

There are two types of scanning assemblies:

- The rotary scan and
- The flat scan.

The rotary scan uses a cylinder upon which the copy is wrapped. As the cylinder rotates, scanning is accomplished by means of a fixed lens. The flat scan system utilizes a stationary table scanned by a movable lens and light source.

Computer and Recording System

Now that light from the copy has been separated and changed into electrical signals, it enters the computer section. This computer section is really the heart of the scanner, for it contains all the controls necessary to correct for variables involved in color correction and reproduction. These variables have been converted into mathematical equations which the computer solves as the electrical signal is received.

In the final operation of scanning, the electrical signal leaves the computer section and enters the recording system, and it is here that the signal is changed back to visible light beam which exposes separate photographic film for each color. In some types of scanners a stylus head replaces the light exposing unit and

engraves a dot pattern onto a plastic or metal photoengraving plate.

The entire operation of scanning, although complex, is virtually instantaneous. That is, as soon as the scan of the copy starts, it immediately records the corrected scan line on the film.

The Scan-A-Color

The Scan-A-Color is the result of years of development and research by one of the pioneers of graphic arts electronics, Fairchild Graphic. The specifications listed in Figure 2 are an indication of the extreme versatility of this machine.

The dials of the control panel of the scanner are color coded, each of which is listed in dot percentages from 0 to 100 per cent. There are dials for the colors yellow, magenta, cyan, blue, green, red, black. The desired dot percentage of a specific color is selected and set on the respective dial.

For example, assume that you desire a yellow printer with a 95 per cent shadow and a 5 per cent highlight dot. You merely select the proper dials and set 95 and 5. Undercolor removal may require a combination of 20 per cent black in the yellow, 25 per cent in the magenta and cyan. Just set these numbers on their respective dials and the scanner takes care of the rest of the operation.

One of the major problems in conventional masking is that the mask not only corrects for color but distorts, to some degree, the reproduc-

tion of tone of the original copy. For example, negative masking of transparencies corrects for color but distorts the highlights and lighter middletones. A unique section of the Scan-A-Color, known as the compression unit, automatically compensates for this problem by compressing the original brightness range of the copy so as not to destroy highlight, middletone or shadow detail, while also making the necessary color corrections. In some instances, however, it may be required to accentuate highlight or shadow detail. This is easily accomplished with the aid of this unit. A close examination of the specification chart will show other unusual features of the Scan-A-Color.

According to Mr. Judson A. Hyatt, vice president of Fairchild Graphic, the Scan-A-Color is presently available only on a lease arrangement with a cost that brings it within the range of the medium to large user of color separations.

Conclusion

Electronics and its application to lithography is here now, promising us a future of improved quality and lower costs to raise reproduction standards and better our competitive position. It took some 25 years to complete the first scanner from the original idea to the finished product, however with research and development expanding at a rapid rate, the near future promises to yield new electronic processes and procedures beyond our present imagination. ★

Scan-A-Color Specifications

1. COPY—Transparency or reflection copy to a maximum of 8 x 10".
 2. REPRODUCTION SIZE—Same size reproduction only.
 3. RESULTS—Continuous tone color corrected negatives or positives, right or wrong reading. The Scan-A-Color also produces screened negatives or positives, right or wrong reading.
 4. SCANNING TIME:
(Actual scanning time.
Set up not included)
- | Scan Lines | 8 x 10" Picture
Time | 8 1/2 x 10"
To include
Color Patches |
|------------|-------------------------|--|
| 250 | 20 minutes | 21 minutes |
| 340 | 27.2 | 29 |
| 500 | 40 | 42 |
| 1000 | 80 | 84 |
| 1250 | 100 | 106 |
5. COLOR CORRECTION—The Scan-A-Color will correct for color saturation of individual colors and also correct for undercolor removal equally in all the colors or in varying amounts in the three printing colors.
 6. FILM TYPE—Continuous tone ortho film for tone separations, and conventional lith ortho film for screened separations.
 7. DIMENSIONS—The scanner measures 6' high, 8' long and 2' wide.
 8. DENSITY RANGES—The scanner can be set to give any desired low density range of from .2 to .6 and a high density of from 1.0 to 2.0, yielding density ranges of from .4 to 1.8 on the final separation negatives. Different density ranges can be selected for each color or all can be set for an identical range.

On web-offset, as on sheet-fed presses . . .

Watch the Packing

IF you are not getting the plate life that you should on your web-off-set press, perhaps you should change your method of packing. The roll fed, blanket-to-blanket perfecting off-set press requires a very precise packing set-up. This is especially true when using thin presensitized plates. Users of these presses have experienced torn and damaged plates, low quality and short life because of improper packing. In some cases the plates have actually been torn off the cylinders.

Minimum Pressure

It is our suggestion that you run your blankets as low as possible and use minimum pressure. If the two opposing blanket cylinders are run close together, even light papers may be printed with the blankets packed to only .001" above their respective bearers. To adjust these cylinders to minimum distance apart, place a thin film of ink on the bearers of one cylinder. Then with pressure on, move cylinders together until there is just a slight indication of ink transfer to the other pair of bearers. You may now assume that blanket cylinder bearers are about .001" apart. Under this condition, if each blanket is packed .001" above its bearers there will be contact between blankets. When a web of thin coated paper (.003" to .005" caliper) passes between these blankets, good printing will result if the blankets are free of glaze and other conditions are good.

Reprinted from the Bulletin of the Lithographic Division, New York Employing Printers Association.

For heavier papers (.005" to .007" caliper) pack the blankets to just bearer height. For still heavier stock, the cylinders may be moved apart. As it is troublesome to remove and re-install blankets on the web press, try to standardize on a packing set-up that will accommodate most of the stocks run on the press.

In packing plates, use a .003" squeeze pressure for grained plates and a .002" squeeze for presensitized smooth plates. This means that when the blankets are .001" over bearers, pack grained plates .002" over bearers and presensitized plates .001" over bearers. By very precise in your packing and after the press is set up, run it under pressure for a few revolutions and then re-check all around with the packing gauge.

Re-Check with Packing Gauge

The same general principle holds true on other offset presses. If the blanket is packed low and the plate packed high there will be less wear on delicate plates. Fortunately, on sheet-fed presses that are not perfecting, the blankets can be packed below bearers and still make firm contact with the paper. This is because the impression cylinder does not have bearers and can be moved into contact with an underpacked blanket.

Sheet-fed perfecting presses can, in most cases, also take advantage of this method of packing. So if you want to get more mileage out of your presensitized plates, pack blankets low and use a minimum of pressure.★



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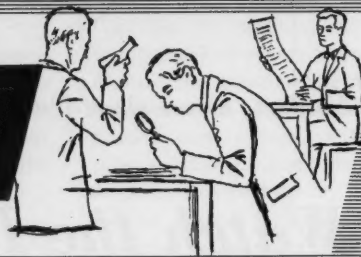
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TECHNICAL SECTION



A new green pigment for the lithographer:

Heliogen Viridine

By V. Tullsen

Pigment Research and Development
General Aniline & Film Corp., New York

HELIOGEN Viridine is a yellowish phthalocyanine green which was announced by General Aniline and Film Corp. in the spring of 1959. The development of this new pigment has been called the only major break-through in phthalocyanine pigment technology in a decade. A review of the history of the phthalocyanine pigments shows that there is considerable justification for this claim.

Phthalocyanine Blues

The first commercial phthalocyanine pigment was an un-substituted copper phthalocyanine which became available about 1935. This was a strong and bright blue pigment with outstanding lightfastness, heat and chemical stability. The chemical stability can be illustrated by noting that it can be dissolved in sulfuric acid and then recovered without chemical change.

In spite of the excellent light and chemical stability of the early phthalocyanine blues, they were not ideal pigments. They were very hard and gave gritty inks. Furthermore, a dispersion of phthalo blue in any ink or paint vehicle gave a heavy, buttery ink with a tendency to skin and set-up. Modern phthalo blues have been greatly improved but the tendency to give heavy inks is still a handicap.

Besides poor ink-making properties, phthalo blues are liable to "crystallize" and "flocculate". These terms are sometimes confused but should be easy to distinguish. A phthalo blue "crystallizes" when exposed to many of the solvents used in paint and ink vehicles. Any aromatic solvent such as benzene, toluene or xylene and certain other solvents, particularly at elevated temperatures, cause the sub-microscopic phthalo blue particles to change crystal form and grow into comparatively huge needle-like crystals. According to the principles of optics, these large crystals have much less tintorial strength than the original tiny particles and a blue ink or paint containing a "crystallizing solvent" may become a dull, weak, gray-blue in a short time. Once this change has occurred, color strength, for practical purposes, is lost forever.

Crystallization of phthalo blues can be corrected by chemical modification of the molecule. A second way is by physical conditioning methods which depend on crystallizing the pigment and then grinding the large "stable form" crystals down to small enough particles to be commercially useful. Either method gives a greener blue than the original untreated but unstable phthalo blue.

Crystal-stable phthalo blues have been available in commercial quan-

tities for more than 10 years, and there are many to choose from.

Flocculation is somewhat more subtle than crystallization. Good dispersion of pigment particles in an ink or paint is necessary for full color strength. Flocculation might be thought of as a temporary poor dispersion which can be corrected by vigorous agitation of the ink or paint. The loss of color strength from flocculation is "reversible" while the loss of strength from crystallization is "irreversible".

The cure for flocculation is more difficult and less definite than the cure for crystallization. Flocculation is more pronounced for poor-wetting vehicles than for good-wetting and grinding vehicles, thus the formulator has an important part in controlling flocculation. Even so, there are now a number of phthalo blue pigments with excellent resistance to flocculation. These are chemically modified copper-phthalocyanines or blends of modified and unmodified pigments. They usually have crystallization resistance as well as non-flocculating properties. So-called non-flocculating phthalo blues have been on the market for a long time. The latest products, which have excellent properties, have been available since about 1955.

Phthalocyanine Greens

The deficiencies and technical

problems relating to phthalo blues have been described at some length. This was done to prepare the scene for the statement that phthalocyanine greens are almost ideal pigments. They are bright green colors with good strength, excellent lightfastness and chemical stability, no solvent bleed, and no crystallization or unexpected flocculation problems.

Commercial phthalocyanine greens are chlorinated copper phthalocyanines containing about 48 per cent chlorine which corresponds to 14-15 chlorine atoms per molecule. This class of pigments was known shortly before the war and has become important since 1945.

Phthalocyanine greens do, however, have some recognizable deficiencies. There has been progress in correcting them but it remains that they are like phthalo blues in giving somewhat short, non-flowing inks and they are a bluish green.

Color Preference— Green Pigments

The hue of phthalocyanine green was cited as a disadvantage. This is a matter of preference which is difficult to measure. Studies have been made by various institutions with various results. We know that the human eye sees long wave lengths of electro-magnetic energy as red and short wave lengths as violet. In the middle is yellow. Yellow light is the most easily seen by the human eye. This may explain why many persons prefer a yellowish red to a bluish red and a yellowish green to a bluish green. Notice the preponderance of yellow-greens in interior decoration. The ladies call these comfortable and warm compared to harsh and cold blue-greens.

The ink maker can select green pigments from a list of five or six chemical classes, each of which can be obtained in a number of commercial variations. All of these have value for particular uses. Inorganic pigments, like chrome greens, are inexpensive and have good lightfastness over a range of blue to yellow greens. They have poor chemical stability and are dull, weak colors. The PTMA derivatives of basic dyes are

very strong, brilliant pigments with good chemical stability and good to fair lightfastness. These tend to be yellowish greens, particularly the pigments obtained from Thioflavine or Brilliant Green. The best of these are excellent, although expensive pigments. "Permanent Greens" obtained from basic dyes have poor resistance to many common solvents and many do strange things in flexographic inks or other inks containing solvents.

In order to overcome the defects of these and other green pigments, mixtures of yellow and blue or greenish-blue pigments are used. Combinations of phthalocyanine blue and Hansa or Benzidine Yellow are common. These can give strong, bright yellowish greens with good to excellent properties. The defect of these mixtures is in the comparatively poor light and solvent stability of the yellow component. A better way of obtaining good properties for a yellow-green is to shade one of the old-fashioned phthalocyanine greens with a high quality yellow pigment.

Even the best of these blends will have less than perfect properties because of the inferior lightfastness, and chemical solvent resistance of the yellow component. However, satisfactory results can be obtained where a compromise with quality is possible.

Heliogen Viridine

Some of the properties of phthalocyanine pigments have been de-

scribed. The value of a yellowish green pigment has been pointed out. A few of the conventional yellow-green pigments and pigment blends have been noted. This review is probably unnecessary for most of the readers of this paper but it gives information which is pertinent in consideration of Heliogen Viridine in relation to other pigments.

First of all, Heliogen Viridine is not a phony. An honest and respected name might be used for a new pigment or a blend of pigments which are different chemically and have different properties than those associated with the old name. However, for over a generation, General Aniline and Film Corporation has used "Heliogen" to mean a phthalocyanine. Heliogen Viridine is an unadulterated phthalocyanine. Its chemical composition is a modification of the phthalocyanine molecule.

Heliogen Viridine has all of the excellent lightfastness, chemical and heat stability, solvent resistance and good working properties associated with phthalocyanine greens. It can be used wherever a high quality pigment with a yellowish green shade is needed.

Just how yellowish is Heliogen Viridine? According to the Munsell system it does not quite escape the "Blue-Green" classification. Table I shows a spectrophotometric comparison of Heliogen Viridine and Heliogen Green. For those of us not too

(Continued on Page 125)

Table 1

	TRISTIMULUS VALUES			CHROMATICITY COORDINATES		— MUNSELL NOTATION —		
	X	Y	Z	X	Y	Hue	Value	Chroma
Heliogen Viridine ..	.2846	.4271	.4739	.2400	.3602	1.25 B.G.	6.98	8.8
Heliogen Green2640	.3926	.5077	.2267	.3372	4.71 B.G.	6.73	8.73

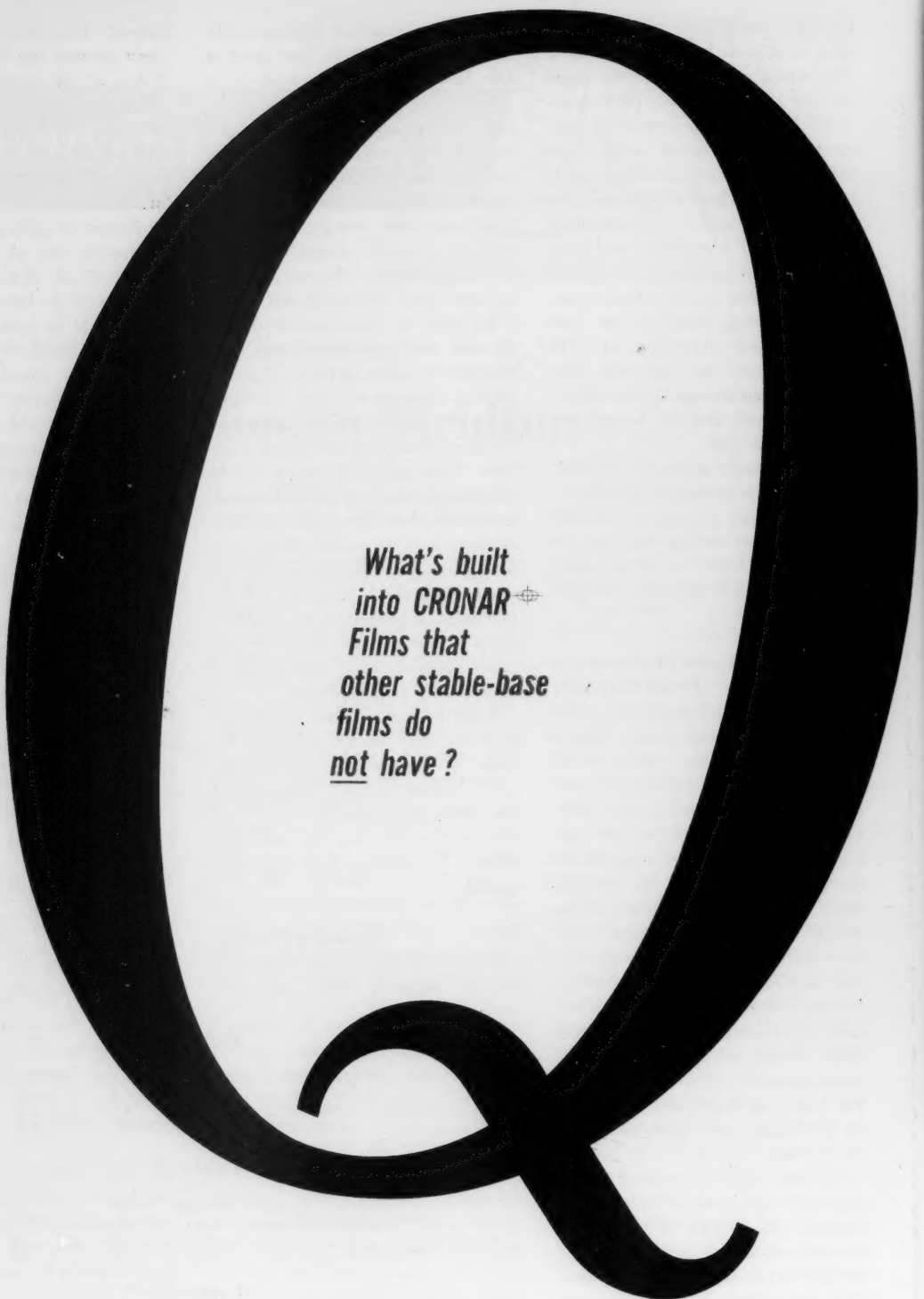
Table 2


	Specific Gravity	Pounds/Gallon	Bulking Value	Oil Absorption	Surface Area M ² /gm	Particle Diameter Microns
Heliogen Green	2.1	17.3	.059	32	60	.047
Heliogen Viridine	2.4	20.0	.050	30	58	.040

Table 3

Viscosity in Krebs Units of Heliogen Green and Heliogen Viridine in several vehicle systems

	HELIOGEN GREEN	HELIOGEN VIRIDINE
18% Pigment in Medium Alkyd Varnish.....	106 KU	63 KU
21% Pigment in Long Alkyd Varnish.....	114	86
20% Pigment		
30% Plasticizer	111	69
50% Solvent		



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Institute of Technology. Dr. Sidney Newhall spoke of differences between visual and spectrophotometric evaluation of colors or metamericisms. Warren Reese spoke on light sources for viewing colors and described requirements to meet various situations. F. L. Wurzburg spoke on the measurement of color and compared spectrophotometers, colorimeters, densitometers and the eye. Warren Rhodes spoke on color specifications and tolerances, describing the capabilities and limitations of spectrophotometers, permanent standards, color samples and visual matching.

COLOR PREDICTION AND CONTROL. M. C. Byrum. *National Lithographer* 67, No. 5, May 1960, pp. 34-35 (2 pages). It is pointed out that color memory can be deceptive. Efforts to develop a control book are described. New fine grain aluminum plates, heat-set inks and improved water control have helped; and the book has been published.

***FAIRCHILD SCAN-A-COLOR.** R. Brunhouse. *Anso Abstracts*, Vol. 20, No. 5, May 1960, page 255. The machine, available in 1960, produces a fully color corrected set of continuous tone separations in negative or positive form from a transparency or reflection print by a rotary scan of 200 lines per inch, or by two faster scans for lower enlargements. The reflected scanning light spot is separated into three beams passing through separation filters and striking phototubes which convert them into electrical energy fed into a computer. The computer automatically effects compression of color brightness and saturation, and correction for the color unbalance of the filters, whereas the correction for the impurities and brightness limitations of the inks can be adjusted, as can be the printing strength of the individual printing primaries and the black printer. The electrical energy is then reconverted to light and directed onto film. *Litho-Printer*, August 1959, pages 8-9.

DO-IT-YOURSELF COLOR VIEWER (Specifications for PDI's New Viewing Method). Anon. *National Lithographer* 67, No. 5, May 1960, pp. 39, 78 (2 pages). Simple illustrations and descriptions of a viewing booth developed by Printing Developments, Inc. and based on Phillips fluorescent lamps. Facilities for viewing both reflection and transparency copy are included. Sources for the specified materials are given. Three illustrations.

***THE CORRECTING EFFECT (DOT-ETCHING QUALITY) OF PHOTOGRAPHIC MATERIALS.** I. A. Novikov. *Zhur. Nauch. i Priklad. Fotografii i Kinematografi*, 4, pp. 356-62, No. 5, September-October, 1959; *Monthly Abstract Bulletin*, Vol. 46, No. 3, March 1960, page 133. By the correcting effect of a photographic material is meant its ability to compensate to a certain extent for loss in density of a halftone dot during dot etching. A numerical value was given to the property by measuring, with a special graticule in the eyepiece of a microscope, the diameter of an etched dot in which the grains in the core of the dot just prevented the passage of background light. This cor-

Photography, Tone and Color Correction

CURRENT EXPERIENCE IN OPERATING THE SCANATRON SCANNER. Gordon S. Allen. *The British Printer* 73, No. 6, June 1960, pp. 103, 104, 105 (3 pages). A report based on some months of actual usage in printing production during which some entirely new experience was gained. Some of this related to "human engineering" or the operator factor. Explanation is given as to how a system is used to simplify the operator's task and how operator suggestions have been incorporated in the machine. A skilled retoucher or color camera operator can be trained to operate the Scanatron in two weeks. Some experiences with the equipment in actual use are cited and suggestions coming from these experiences on gravure, offset, black printer and other problems given. Three illustrations in monochrome and an insert page in color run in four-color gravure without hand work.

STANDARD CONDITIONS FOR COLOR VIEWING. F. W. Mackenzie. *Process* 67, No. 794, March 1960, pp. 82, 83 (2 pages). The need for standardized viewing light for viewing colored printing arises from the fact that one person may view by daylight, one by artificial light, and they may see different results. Sun Engraving Co. has provided customers with standardized view-

ing booths, which are checked periodically against their own so all concerned will see color the same. A line drawing shows the booth and illumination used and three halftones show it in use.

A GLASS SCREEN HALFTONE SENSITOMETER. Raymond Allaya. *Photographic Science and Engineering* 4, No. 2, March/April 1960, pp. 74-77 (4 pages). Exposure of halftone dot patterns on film test samples is required in the evaluation of "lith"-type films and processing systems used in the graphic arts industry. Though a process camera equipped with a cross-line glass screen can be used for making halftone exposures which are representative of practical application, this type of equipment is cumbersome and inconvenient for experimental and test use. Discussed here is a simple, compact optical system which will effectively simulate any set of optical conditions obtainable in a process camera. A prototype halftone sensitometer using this system is described. Three line illustrations, eight references.

SCIENTIFIC APPROACH TO THE MYSTERIES OF COLOR. Warren L. Rhodes. *Printing Production* 90, No. 4, January 1960, pp. 51, 52, 54 (3 pages). See also—Anon. *COLOR—Modern Lithography* 28, No. 2, February 1960, pp. 32-3, 119-121. A report on a three-day color seminar held at the Rochester

recting factor was found to be unaffected by the conditions under which development and dot etching were carried out, but to be markedly affected by the properties of the emulsion layer itself. The correcting effect became greater as the silver halide content of the material was increased. The correcting factor was also increased as the covering power of the emulsion and the gelatin-to-silver ratio increased. The essential condition for good etching properties is shown to be the presence of the halo surrounding the dot.

COLOR REGISTER IN PHOTOGRAPHY. Frank M. Preucil. *Printing Production* 90, No. 8, May 1960, p. 70 (1 page). A question is raised about masks through one filter which do not register with separations made through another. The lens is pointed out as one unsuspected source of this trouble. A test for the lens is outlined. Filters can also be at fault. For some forms of this trouble more unsharp masks are suggested.

Planographic Printing Processes

WHAT WE HAVE LEARNED ABOUT WEB-OFFSET. Hyman Safran. *Modern Lithography* 28, No. 4, April 1960, pp. 39, 140, 141, 143 (4 pages). (From a talk at Navigraphic '60 Forum, New York, March 19, 1960). Report of experiences of a printer with a record of success with web-offset in publication work. His latest 5 on 5 blanket-to-blanket Harris-Cottrell press is described. Problems and successes in the field are discussed, including improvements in plates, paper and ink already achieved and yet needed. Present problems include: 1. Lack of skilled craftsmen, 2. Scarcity of high speed equipment, 3. Paper and ink problems not yet solved, 4. Resistance to change.

WEB-OFFSET FOR NEWSPAPERS STUDIED AT RIT. Anon. *Modern Lithography* 28, No. 4, April 1960, pp. 52, 55, 141 (3 pages). A report on studies at Rochester Institute of Technology on web-offset use for newspapers. Technical and economic factors are explored in question and answer form. Since no newspaper is known using web-offset, the practicality of the process is not proven as yet.

LITHO PLATE CARE ON PRESSES. Anon. *Printing Production* 90, No. 7, April 1960, p. 54 (1 page). First suggestion is that a pressman should learn more about platemaking. Suggestions are given on roller setting, packing, and control of blinding and scumming.

SWING TO WEB-OFFSET IS TREND IN LITHOGRAPHIC INDUSTRY. William H. Webber. *The Inland and American Printer and Lithographer* 145, No. 1, April 1960, pp. 62-63 (2 pages). Web offset has grown rapidly in the past few years. Some reasons are given as faster printing time, greater flexibility, savings in full color printing, and the use of roll paper. Some disadvantages or deterrents are: resistance to change, paper waste, plate cracking, paper and ink problems. Improvements which have contributed to the growth of web offset have been the same improvements in plates, dampening systems and paper as in

sheet fed work. The contributions of L.T.F. in these are cited.

WEB-OFFSET ROLLS AHEAD. Hyman Safran. *National Lithographer* 67, No. 5, May 1960, pp. 33, 48, 51 (3 pages). Author first briefly describes experiences in getting into web offset leading at present to the installation of their fourth press, a 51" 10-color Cottrell. This press is described briefly. The growth of web-offset is shown by: from one make a few years ago to six or more (publication presses), and from perhaps 10 4-color presses in 1946 to over 100 now. Some problems in web-offset include: lack of skilled craftsmen; speed, paper and ink problems, and resistance to change. One illustration.

CRAYONS, COLORS AND CHARACTERS. Roger Callahan. *Modern Lithography* 28, No. 4, April 1960, pp. 46-47 (2 pages). Reminiscences of the days of the lithographic stone, jobs running to 16 or more colors, the techniques used on the stones, and particularly of the artists applying these techniques.

FAST COLOR WEB OFFSET. Anon. *Printing Magazine* 84, No. 3, March 1960, p. 83 (1 page). A story on a Harris-Cottrell press built for Safran Printing Co. of Detroit. It is a double five-color press printing blanket-to-blanket with a 50" web and 35" cut off (based on 8½ x 11 in. imposition). Web speed is up to 1200 f.p.m. Press is 92' in length and weighs 110 tons. Three illustrations show the press on the Cottrell assembly floor.

PRODUCT GROWTH IN THE SMALL LITHO FIELD. Richard L. Smith. *Printing Production* 90, No. 8, May 1960, pp. 38, 39, 91, 92 (4 pages). The smaller litho presses or offset duplicators were originally intended for use in business establishments, the so-called "captive plants." Printers, especially smaller plants, have found them useful and profitable. The wide variety of plates available to these presses and the quickness and simplicity of their preparation, copy preparation techniques and the presses themselves are discussed.

Paper and Ink

THE IMPACT OF THE FOOD ADDITIVES LAW ON PRINTING PLANT PRACTICE. Hal-Curtis Felsher and Walter J. Hanau. *Gravure* 6, No. 6, June 1960, pp. 28, 57, 58 (3 pages). The importance of this law to the printer lies in the possibility that packaging materials might migrate to contained food. A check list given to aid the printer in complying with the law. This list gives brief specific suggestions, for instance, on acceptable solvents.

EXPERIENCE WITH CONTROL CHARTS ON INK-FILM THICKNESS AND SHARPNESS. Warren L. Rhodes and John F. Petrycki. *TAPPI* 43, No. 5, May 1960, pp. 429-433 (5 pages). Experience over a 12-month period with control charts on ink density and sharpness in lithographic printing is described. One of the experiments in color reproduction at the Rochester Institute of Technology calls for repeating results obtained using an offset press to print three

colors on coated stock. Density and sharpness are measured with a densitometer. The pressman is asked to achieve a constant ink density and sharpness within one sheet and from sheet-to-sheet on all press runs. This paper describes how the pressman tries to achieve this uniformity and shows his results by means of control charts and related statistical tests. One batch of paper exhibited a periodic sheet-to-sheet variation. Paper tests were run on these sheets to see which of the test methods correlated with press results. Ink density correlated with basis weight, coating weight, gloss, brightness, and caliper.

THE PATRA "PET." Anon. *The Lithographer and Offset Printer* 56, No. 3, March 1960, pp. 22, 24 (2 pages). This simple instrument, a "Paper Equilibrium Tester," gives a quick, direct and reliable indication of the sort of dimensional changes in paper that are likely to occur when the paper is taken into the pressroom for machining. It is sword-shaped duralumin bar which is "plunged up to the hilt through the unbroken wrapping of a sample ream of paper." It then makes two marks on one sheet of paper a known distance apart. When the package is opened and the marked sheet conditioned, the change in distance between the marks can be detected to an accuracy of 0.025 per cent (0.005 in.). The use of the instrument and how it compares with the sword hygrometer are discussed. The Patra Pet is being included with the Patra Test Bench or may be purchased separately. One illustration.

SYNTHETIC INKS, A NOVELTY? Anon. *I.G.T. Nieuws*, Vol. 12, No. 7, July 1959, p. 100-2; No. 10, October 1959, pp. 152-3 (in Dutch); *Printing Abstracts*, Vol. 15, No. 1, January 1960, p. 4. I. The development of plastic-based inks in recent years is discussed. Their advantages include higher pigment concentration, better flow, less wear on plates, less smudging when printing wet-on-wet, better gloss, etc. II. The use of modified alkyd resins in printing inks is briefly discussed.

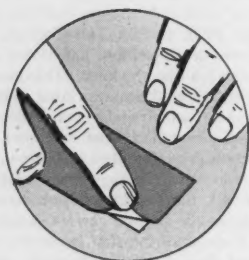
***INK FILM THICKNESS MONITOR.** Anon. *Litho-Print*, Vol. 2, No. 11, November 1959, p. 53; *Printing Abstracts*, Vol. 15, No. 1, January 1960, p. 27. Two Russian engineers have developed and patented a device to control ink film thickness. This measures the light reflected from printed marks or individual areas of a sheet, and this light is passed through a complementary filter, and the resulting impulses indicate ink film thickness, after having been amplified. Normal ink film thickness leads to a zero reading, as the output current is canceled out at a standard ink film thickness, which is pre-set. Deviations from normal—that is, too much or too little ink—are indicated on a dial and also by a lamp signal.

***EXPERIENCE WITH CONTROL CHARTS OF INK-FILM THICKNESS AND SHARPNESS.** W. L. Rhodes and J. F. Petrycki. *Rochester Institute of Technology, Graphic Arts Research Department*, Rochester 8, New York (Doa. 62.1/20, 174); *Printing Abstracts*, Vol. 15, No. 1, January 1960, p. 8. One of the experiments in color reproduction at Rochester Institute of Technology calls for



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repeating results obtained using an offset press to print three colors on coated stock. Density and sharpness are measured with a densitometer. The pressman is asked to achieve a constant ink density and sharpness within one sheet and from sheet-to-sheet on all press runs. This paper describes how the pressman tries to achieve this uniformity and shows his results by means of control charts and related statistical tests. One batch of paper exhibited a periodic sheet-to-sheet variation. Paper tests were run on these sheets to see which of the test methods correlated with press results. Ink density correlated with basis weight, coating weight, gloss, brightness and caliper.

*THE INK BUILDS UP ("PEARLS"). Anon. *Fadenzahler*, Vol. 8, No. 3, 1959, pp. 1-4 (in German); *Printing Abstracts*, Vol. 14, No. 5, May 1959, page 382. The causes of building up ("pearling") in letterpress and offset are discussed. The ink can build up on printing plates and blocks, which causes the filling-in of halftones and the formation of unsharp prints. Another type of "pearling" frequently occurs when the ink is not suited to the paper surface. In this case, when perfecting, the ink builds up on the printing surface of the first printing process. Other causes of the building up of inks are dusty papers, drying of the ink on the rollers and emulsification of water and ink in the offset process. Hints are given on avoiding these troubles.

PAPER TROUBLES CHART FOR PRESSMEN. Anon. *Modern Lithography* 28, No. 4, April 1960, pp. 40-41. Prepared by the Lithographic Division, New York Employing Printers Association. Twenty-one forms of paper troubles which can occur in lithographic printing are covered under the following four headings: (1) Trouble, (2) Term, (3) Cause, (4) Possible Cure.

Lithography—General

OFFSET OPERATIONS—SELECT THE RIGHT PLATE. Earl Roberts. *New England Printer and Lithographer* 23, No. 4, May 1960, pp. 19-20 (2 pages). Fourteen different types of lithographic plates are listed. Variations in treatments for many of these plates multiply the choices. Some of these variables are analyzed briefly in terms of plate-making equipment needs.

THERE'S A BIG NEED FOR IMPROVED OFFSET PRESS DESIGN. Noble B. Vining. *New England Printer and Lithographer* 23, No. 1, February 1960, pp. 53-54 (2 pages). Author gives an extensive discussion of cylinder packing and slippage, pointing out that major press manufacturers differ in their viewpoints on this subject. He feels that the answer lies in: (1) Presses with all three cylinder bearers in contact and provision to be made for packing the impression cylinder to the desired height; or (2) presses operating without bearers but with provision for adjusting cylinder distances as well as packings.

INVESTIGATIONS OF TINTING AND SCUMMING IN OFFSET PRINTING ON COATED PAPERS. A. Atramo. *Grafiska Forskningslaboratoriets Meddelande*, No. 42, June 1959, pp. 48-59 (in Swedish); *Printing*

Abstracts, Vol. 14, No. 12, December 1959, p. 920. In order to investigate the cause of scumming or tinting which sometimes occurs in multicolor offset printing on machine-coated papers containing casein, a series of experiments have been carried out on a Multilith press with the dampening and inking systems divided in the middle. It was clearly shown that the only ingredient of the paper which caused this defect was casein, and that scumming and not tinting occurred. Scumming or tinting did not occur when various surface active agents were added to the fountain solution, but instead an anti-scumming effect was observed in most cases. CMC had a substantially better anti-scumming effect than gum arabic.

THE PRESSMAN'S RESPONSIBILITY TO HIS PLATE. Anon. *Modern Lithography* 28, No. 4, April 1960, p. 45. After a suggestion that every pressman should have some plate-making experience, plate troubles on the press are covered under the headings of mechanical damage, blind image and scumming. Thirteen steps for curing the latter troubles are given.

OFFSET REGISTER REQUIRES GOOD WORKMEN AND EQUIPMENT. Charles W. Latham. *Inland and American Printer and Lithographer* 145, No. 1, April 1960, pp. 72-3-4 (3 pages). Misregister can occur in many steps in the offset process. Art work and plates should carry register marks. Sheet handling through the press and its relationship to register are discussed step-by-step, with causes of misregister pointed out. The difference between slurs and doubles is pointed out and illustrated. Packing enters the picture as well. Suggestions are given. Three illustrations.

SOME DUTIES OF THE PRESSMAN TO HIS PLATE. Anon. *National Lithographer* 67, No. 4, April 1960, p. 85 (1 page). (From Lithographic Division Bulletin, N.Y. Employing Printers Association.) Author suggests apprentice pressmen should spend some time in platemaking to understand plate problems better. Plate failure on the press is described briefly. A 13-step procedure is given for remaking albumen and deep-etch plates right on the press if trouble is caught soon enough.

WEB-OFFSET PERFECTING PRESS PACKING. Anon. *Printing Production* 90, No. 8, May 1960, p. 70 (1 page). Specific suggestions on packing heights of blankets and plates above bearers are given on this rather critical cylinder packing problem.

*METHOD OF MAKING AN OFFSET BLANKET. U.S. Patent 2,925,355—Application April 13, 1954. Edward D. Hill. *Official Gazette* 751, No. 3, February 16, 1960, p. 683. A method of directly preparing an offset blanket having a desired quality of tack and a uniform thickness without requiring any subsequent shaping step, comprising mixing at a temperature below about 100 parts by weight of a polyvinyl resin selected from the class consisting of polyvinyl chloride, copolymer of vinyl chloride with vinyl acetate, and copolymer of vinyl chloride with vinylidene chloride and 50 to 500 parts by weight of a polymer

liquid butadiene-acrylo nitrile, heating the mixture from about 295° F. to 400° F. to convert it into a homogeneous mass, forming the mass in a blanket form, maintaining a face of the blanket free from defacement-contact, the properties of the mixture causing uniform thickness to result coextensively with the blanket area, and continuing the heating step to convert the mixture to a final set.

LOOKING FOR LITHO PLANT HAZARDS. Walter R. Smith. *Printing Production* 90, No. 4, January 1960, pp. 37-50 (2 pages). Safety in the platemaking department and in the pressroom are discussed separately. In the former, irritants and sensitizers can lead to dermatitis. Materials causing this are described and five specific safety instructions quoted. Specific suggestions for pressroom safety largely involve avoidance of getting hands too close to moving parts. Other points cover the use of acids and solvents in the pressroom, the safe handling of heavy material and good housekeeping.

CENSUS REVEALS LITHO GROWTH. Anon. *National Lithographer* 67, No. 8, August 1960, pp. 43, 44, 70 (3 pages). Figures from the 1958 and previous censuses of manufacturers show the growth of lithography both in dollar volume and in proportion of total printing volume. Printing receipts in 1958 were \$25 per person, more than one-third of which was for lithography. Figures are given on distribution by areas in the U.S. Two charts.

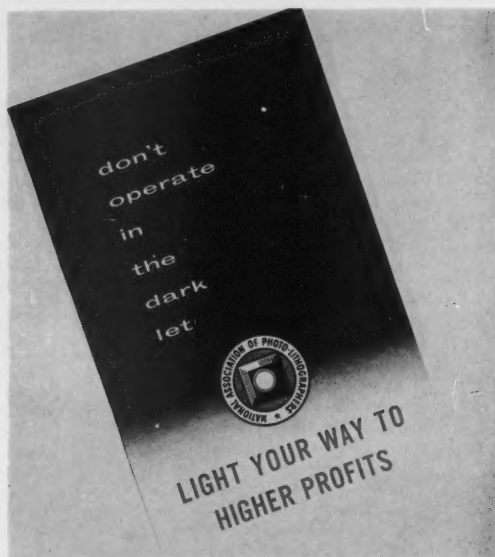
CAUSES AND PREVENTION OF DERMATITIS IN THE OFFSET PROCESS. Harlan M. Levin, M.D.; Matthew J. Brunner, M.D., and Herbert Rattner, M.D. *The American Pressman* 70, No. 2, February 1960, pp. 28, 29, 30 (3 pages). Dermatitis is an important occupational hazard for those engaged in the offset printing process, affecting from 5 to 10% of the 30,000 workers in the industry. The prevention of dermatitis among offset cameramen, strippers, platemakers and pressmen is difficult to achieve. No simple or complete solution of the problem is likely because of factors inherent in the offset printing procedure. Results are given of a dermatological study of industrial workers. Dichromate was found to be the most important agent in dermatitis. Perhaps the best solution to the problem of dermatitis in the offset printing process is the transfer to some other job category of workers showing evidence of skin disease related to their occupation.

LATEST DEVELOPMENTS IN THE LITHOGRAPH PRESSROOM (from a talk presented during the 40th Annual International Convention, September 1959, in New York). Jack E. Spencer. *Share Your Knowledge Review* XLI, No. 7, April 1960, pp. 10, 11, 12 (3 pages). Offset press developments have been gradual to keep pace with demands. Plates, chemicals, papers, rollers, inks have all improved. Press improvements mentioned are better register, better sheet control, continuous feeding and double deliveries, feeders that sheet off a roll, improved dampening systems (Mullen and Dahlgren systems described), and sheet

(Continued on Page 123)

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PHOTOGRAPHIC CLINIC



Stripping Halftones with a Butt Fit

By Herbert P. Paschel
Technical Editor

Q: We want to make a halftone negative of a group of 32 small pictures all the same size in four rows of eight each. When pasting them down in position we find it impossible to maintain equal spacing between each picture and each row. This work is usually produced in school annuals in which there is a white space or line about 1/32" wide between each row and picture. It looks as though the spacing was accomplished with masking tape, but it would seem as though the tape would cause halation when burning the plate. Is there an accepted method to do this?

W. V. A., PLYMOUTH, WIS.

A: Whenever an assembly of negatives involves extremely narrow spacing, or a butt fit, it is usually safer and easier to make a set of complementary flats. By dividing the negatives between two flats you obtain better working clearances for positioning and attaching the negatives and avoid all possibility of getting blemishes in the work areas that could be caused by tape too close to the edges. For very intricate jobs, several flats may be used but, in your case, two flats are probably all that are needed. These can be used to make a composite film positive from which a contact negative can be made. Or a plate can be made directly by double printing.

It is impossible for Mr. Paschel to give personal replies by mail, but all questions will be answered in this column as soon after receipt as possible. The columnist also is available to the trade as a consultant for more complex litho problems.

The flats, of course, are so prepared that they are keyed to each other. Register, in subsequent steps, is obtained by means of butterfly cutouts, lugs and tabs, etc. Detailed directions for preparing complementary flats may be found in *Offset Stripping, Black and White*, published by the Lithographic Technical Foundation.

Another avenue of approach is in copy preparation. Halftone negatives of the illustrations are made to scale in advance. From these you make contact prints on a contrasty photographic paper. The screened prints and the type matter are pasted-up to form a complete, camera-ready mechanical. This can be photographed as a line negative.

Reclaiming Silver

Q: Can silver be reclaimed from processing solutions? Does it pay?

B. P., PHILADELPHIA

A: Silver can be reclaimed from photographic fixing solutions in several ways. The most commonly used methods are—

1: *By Precipitation.* This involves storing the exhausted hypo in large containers and adding a chemical to precipitate a silver sulfide sludge.

2: *By Electrolytic Action.* (a) Certain metallic bars immersed in the hypo will attract the silver from the solution—a sort of self-plating action. (b) Use of specialized equipment similar to an electro-plating outfit.

The recovery of the silver from the solutions is but the first step. The silver waste must be shipped to a refinery. In view of the time, effort and cost involved, silver recovery is generally not a profitable venture for the average camera department.

Book Review

PHOTOGRAPHIC CHEMISTRY, Pierre Glafkides. Translated from the French by Keith M. Hornsby, F.R.P.S. Fountain Press, London. Distributed in the U. S. by the MacMillan Company, 60 Fifth Ave., New York 11, N. Y. Vol. 1, black and white, 6 x 10", 491 pp., \$21. Vol. 2, color, 6 x 10", 505 pp., \$21.

Although the title of these two volumes implies a specific and specialized subject, the text embraces many allied fields. The chemistry of the photographic processes is, of course, the author's main theme, but so thoroughly does he cover related subjects that the title may be con-

sidered a misnomer. From the title alone the potential reader could not anticipate the total content and scope of this work.

Volume 1, which was published earlier, is concerned with the formation and development of the image in black and white photography. In his introduction to the subject the author makes a detailed treatment of the nature of light, photochemistry, theory of the latent image; and

the theory of development. Turning then to the practical aspects, following chapters discuss developing agents, developing solutions, fixing, washing and drying, reversal development and after-treatment such as toning, reducing and intensification. Measurement and analysis of image formation are covered in two chapters on the theory and practice of sensitometry.

The second half of Volume 1 con-

tains chapters that deal with photographic emulsions—their properties, components and preparation. Three chapters cover a wide variety of photosensitive systems and special techniques as, for example, ultraviolet and infrared photography, template photography, reversal transfer (DTR), photoceramics, electrostatic processes, photosensitive glass and the like.

Volume 2, just released, is concerned with colored images. This embraces color separation photography, multilayer color materials and the full gamut of color reproduction systems. Starting out with a discussion of light sources and the theory of color reproduction, the chapters that follow cover in detail a vast number of color systems—additive and subtractive, past and present. Most of the color films and print systems currently in use are discussed in detail in the chapter on color development. Such familiar processes as dye transfer, Flexichrome and Pinatype are treated in the chapter devoted to the processes involving the dyeing of gelatin images. Another chapter is concerned with the formation of colored images after development. This covers such diverse systems as color coupling, mordanting and toning.

A chapter on images produced by means of light sensitive colloids includes photomechanical platemaking methods (photoengraving, photogravure, collotype, silkscreen and photolithography), photoceramics, the carbonyl process, gum-bichromate printing, etc. The remainder of the text is concerned with color sensitization and deals primarily with the dyes used to confer specific sensitivity to photographic emulsions. A 50-page appendix provides theoretical and practical data on chemical principles.

This brief review can do no more than provide an insight to the contents of a rather thorough and definitive treatment of photographic chemistry. This is definitely not a simple, how-to-do-it text for the novice. But the experienced worker and the advanced student will find much to

(Continued on Page 121)

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PRODUCTION CLINIC



Printing Books By Offset

By Frank Arbolino

Assistant Plant Manager
Polygraphic Co. of America Inc.

"HOW black is black?" is always a good conversational question. The answer may be summed up by saying it is the aim of every lithographer to be able to print a dense, even black that is sharp and clean on various stocks. Nowhere is this so important to the esthetics of a job as in book printing where a dense, even black is always desired.

There are many variations in procedures for book printing, and some of these are foreign to the average lithographer. For instance, what may appear to be an economy measure in the preparation of copy may prove to be detrimental to the finished job. Color lithographers may overlook the importance of uniform type, a factor which is of great concern to the book publisher. When illustrations and type matter appear on the same form, the lithographer should give them equal attention.

Layout is most essential on good book work, and especially in offset printing for, unlike letterpress, individual pages cannot be moved a lead or pica after the plate is made and the sheet submitted for O.K. The correct position must be predetermined, and in some cases, consideration should be given to the variation in margins after folding. One of the advantages of printing books by offset is the variety of paper that can be used. Frequently the soft and bulky papers are preferred, and these are the very stocks that draw in the most when folded.

A 32-page signature, when folded, may have a decided variation in margins from the outside fold to the center fold. One way of determining this is to rule a sheet, making boxed areas to simulate the printed pages, then fold the sheet or have the bindery fold it, just as the machine will fold the printed job. The ruled lines indicating type or printed matter, can then be marked on the numbered pages, showing how far and in what direction each is to be moved in order to get uniform margins. A second sheet ruled with these corrections can be folded for further check or position. It sometimes happens that even the headings must be shifted, depending on the type of fold the signatures are subjected to.

If uniform type is desired, and it generally is, great care must be exercised in selecting the type.

Too often the mistake is made of setting up pages using type that is new or fairly new, and others quite

worn. This gives the page an unevenness that may be hardly perceptible until it appears on the finished sheet. If a section of a page, or a complete page, were made of flat or used type, and the opposite page in the finished book were of better and sharper type, the contrast between the two would exaggerate the defect.

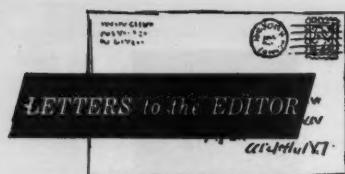
The position of the respective pages on the press sheet may cause this variation to become extreme, since the pressman is faced with several pages in line around the cylinder. If, for instance, the type were thin and sharp on the pages preceding the one carrying heavy or flat type, the pressman would be forced to run the ink up in favor of the several thin pages, and thus further thicken the heavy or flat type.

The making of negatives or positives should also be carefully studied, for a gray negative can give an unevenness which is difficult to see until it appears on the printed sheet. Before making the plate, the negative or positive should be scrutinized, and if the film shows signs of being thin, a decision must be made as to time exposure, to avoid getting either a dirty plate or a weak impression. Uniformity should be the uppermost aim in all the stages of the procedure. All pinholes or blemishes should be opaqued before the film is used to make a plate. Any cleaning left for the pressman is likely

(Continued on Page 119)

Readers with questions about press and related areas may submit them to Mr. Arbolino. He will answer them as promptly as possible in this column, if they have general interest, but no individual replies can be made.

Questions should be addressed to Frank Arbolino, Production Clinic, Modern Lithography, Box 31, Caldwell, N. J.



'Best Value'

Dear Sir:

Enclosed is my renewal for MODERN LITHOGRAPHY. I consider this one of the best values and greatest necessities in my work and would hate to have to do without it each and every month.

Albert D. Hersey,
Monument Beach, Mass.

Considering Offset

Dear Sir:

Our magazine has been printed for 15 years by letterpress and we are now considering the possibility of having it done by photocomposition and printed offset.

We do have one problem which we thought you might be able to answer. Our advertisers require from three to six good proofs and we need a way of furnishing these without its becoming too expensive. This was no problem with letterpress, but how it can be done when advertisements are set by photocomposition does constitute a problem.

William Ballard,
The Instrumentalist
Evanston, Ill.

One of the manufacturers of photocomposition equipment suggests that an Ozalid machine is usually used to provide good proofs for this purpose. The master print that comes from the photocomposition machine is put into the Ozalid machine and as many proofs as are required are produced.—Editor.

What Is Ink?

Dear Sir:

Many times I consider myself illiterate when I hear great orators or read novels by authors who can put ideas on paper which I consider classics. These opinions are strictly my own and I know that you would not except my ideas on a great many subjects. I wouldn't expect you to.

However, in the latest edition of MODERN LITHOGRAPHY (Dec. p. 122) in the "Tale Ends" column, you note that the National Association of Printing Ink Makers was seeking a definition of the term "printing ink."

The definition accepted by that most academic organization stated "Printing ink includes any fluid or viscous materials used in printing. . . ." (The remainder of the definition is acceptable.)

As a student of the graphic arts and printing inks it has always been my understanding that two basic materials constitute a printing ink—pigment and vehicle. (Driers are added to expedite the process. If Mr. Craig can forget the first and most

basic elements I assume that I can be forgiven for the omission of driers.)

It is my contention that the author of this gem forgot about the pressman who is responsible for the development of a perfect reproduction. I am a pressman and my printing ink must consist of a vehicle and a pigment. (I consider any coloring agent a pigment.)

I therefore suggest that the definition submitted by Mr. Craig should be revised to include these two elements. If this is not acceptable, I will assume that our illustrious ink suppliers are acting underhandedly to pass off on the poor defenseless pressmen mud, tar or any viscous material that will flow properly to fill standard ink cans for deceptive purposes.

J. Roger McQuate
Philadelphia

I think you are looking for trouble where it doesn't exist. While the ink definition cited last month doesn't specifically mention pigment and vehicle, it should be obvious that these two are included in the meaning of the definition. The intent, apparently, was to devise a definition that would cover the whole range of printing inks, in all fields of printing. Such a definition must perforce be fairly general. As for what the ink companies "pass off" as ink, it seems obvious that the test of any ink is not its definition but its performance on the press. From what we hear they perform very well.—Editor.

Meetings

Lithographic Technical Foundation, Educational Committee meeting, March 13, 1961; Members' and Directors' meetings, March 14, 1961; Research Committee meeting, March 15, 16; all meetings in Sheraton Blackstone Hotel, Chicago.

Web-Offset Section, PIA, annual meeting, Edgewater Beach Hotel, Chicago, April 19-21.

Lithographers and Printers National Association, annual convention, Arizona Biltmore Hotel, Phoenix, Ariz., April 30-May 3.

Southern Graphic Arts Association, 40th annual convention, Andrew Jackson Hotel, Nashville, Tenn., May 3-5.

National Association of Litho Clubs, 16th annual convention, Dayton Biltmore Hotel, Dayton, O., May 4-6.

Research & Engineering Council, 11th annual conference, Hotel Fort Des Moines, Des Moines, Iowa, May 22-24.

Eleventh Annual Quality Control Seminar, Rochester Institute of Technology, June.

Technical Association of the Graphic Arts, 13th annual meeting, Hotel Deshler-Hilton, Columbus, O., June 12-14.

National Association of Photo-Lithographers, 29th annual convention and exhibit, Hotel Commodore, New York, Sept. 27-30.

Farnsworth Opens in Boston

Farnsworth Press, a new printing firm located at 44 Farnsworth St., Boston, is in full production in its 11,000 square foot plant.

Malcolm Berman is president-treasurer of the recently formed complete offset plant, which employs 20 persons. Officers, in addition to Mr. Berman, are: George J. Mark, vice president and plant superintendent; Fredley Berman, assistant treasurer and production-traffic manager, and Marie Grassa, secretary and office manager.

Enlarges Office Ware Line

Color Art Printing and Stationery Co., St. Louis, in an effort to supply a complete line of office supplies, has enlarged its plant to include display space for a line of office equipment in addition to its printed supplies.

The company has also recently doubled the size of its printing plant and added new warehouse space to its property at 10324 Highway 66.

A full-color brochure, designed and produced by the company, announced the expansion of its facilities and its line of merchandise.

CLI Plans New Courses

Registration for second semester classes at the Chicago Lithographic Institute starts Feb. 1. James K. Martin, general manager, announced last month. Regular classroom work will get under way either Feb. 6 or 13, but not later than the 13th, with a definite decision on this date promised for later announcement.

Two new courses for journeymen are planned for the second half of the school year, one to deal with the technique of photo composition and the other with camera masking. The first will make use of the new Ruthomatic photo composing machine recently presented to the Chicago school by Rutherford Machinery Mfg. Co., while the course on camera masking will for the first time present all methods commonly in use for this operation.

Each of the two new courses, Mr. Martin said, will run for only a few weeks not a full semester.

Kodak announces

5 new continuous-tone films

All on Estar Base

KODAK SEPARATION NEGATIVE FILM, TYPE 1, ESTAR BASE. This is a new, fine-grain, pan film of moderately high speed for low-to medium-contrast work, such as transparency separations, and for making masks. Closely matched color gammas. Harder emulsion means shorter drying times. Suitable retouching surface. On 7-mil Estar Base for dimensional stability and kink resistance.

KODAK SEPARATION NEGATIVE FILM, TYPE 2, ESTAR BASE. This is a new, fine-grain, rapid-drying, suitable-speed pan film of high contrast, on stable 7-mil Estar Base. For making color-separation negatives for the positive masking and camera-back masking methods. Also for making continuous-tone positives from color negatives. Surface made for retouching. Well-matched color gammas.

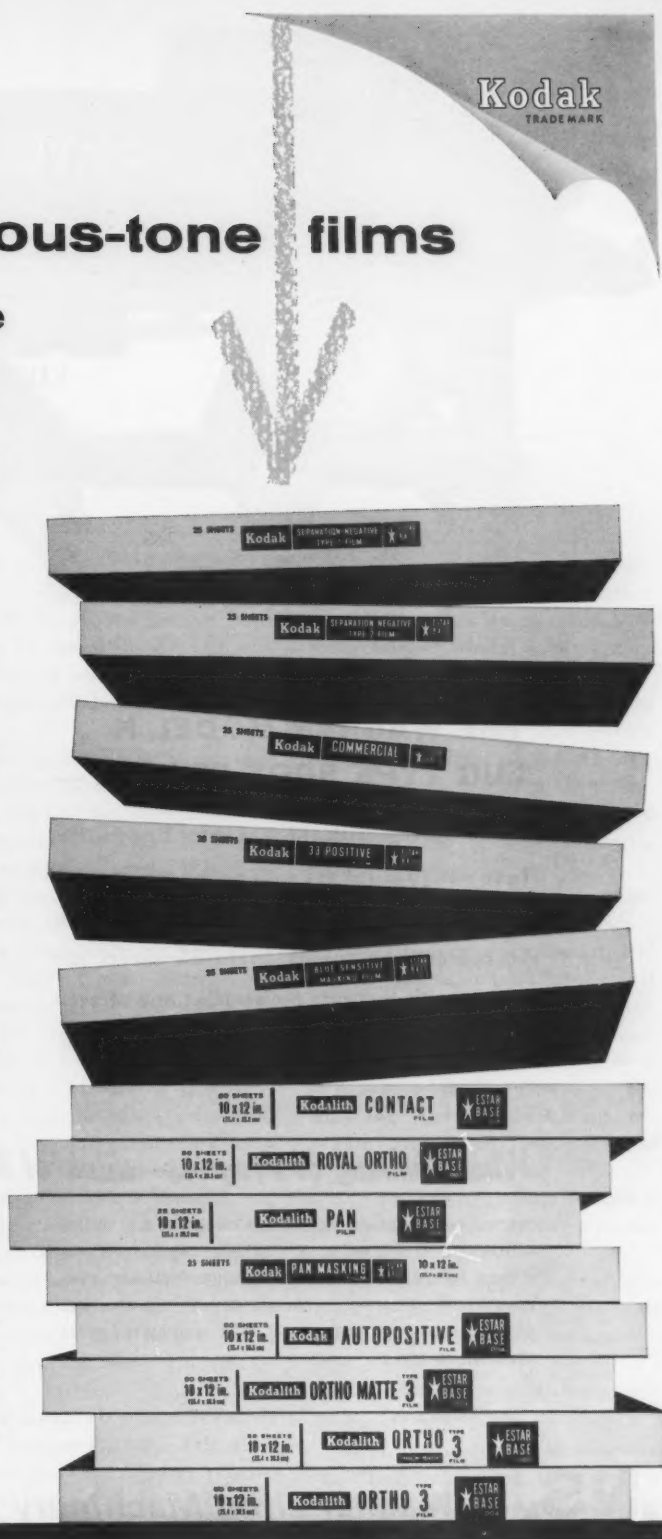
KODAK COMMERCIAL FILM (ESTAR BASE). A rapid-drying blue-sensitive film of medium speed—capable of giving moderately high contrast—coated on stable 7-mil Estar Base. For making negatives in copying continuous-tone subjects, as in photogravure, and for other work not requiring green or red sensitivity. Special emulsion surface facilitates retouching.

KODAK 33 POSITIVE FILM (ESTAR BASE) is a new, fine-grain, rapid-drying, blue-sensitive film of moderately high speed and medium contrast, on stable 7-mil Estar Base. Chiefly for making continuous-tone positives for photogravure and photoengraving color work. Its shorter toe helps preserve good highlight gradation in positives. Excellent also for masks in positive masking, and for the pre-masks in two-stage masking, when a 7-mil support is desired.

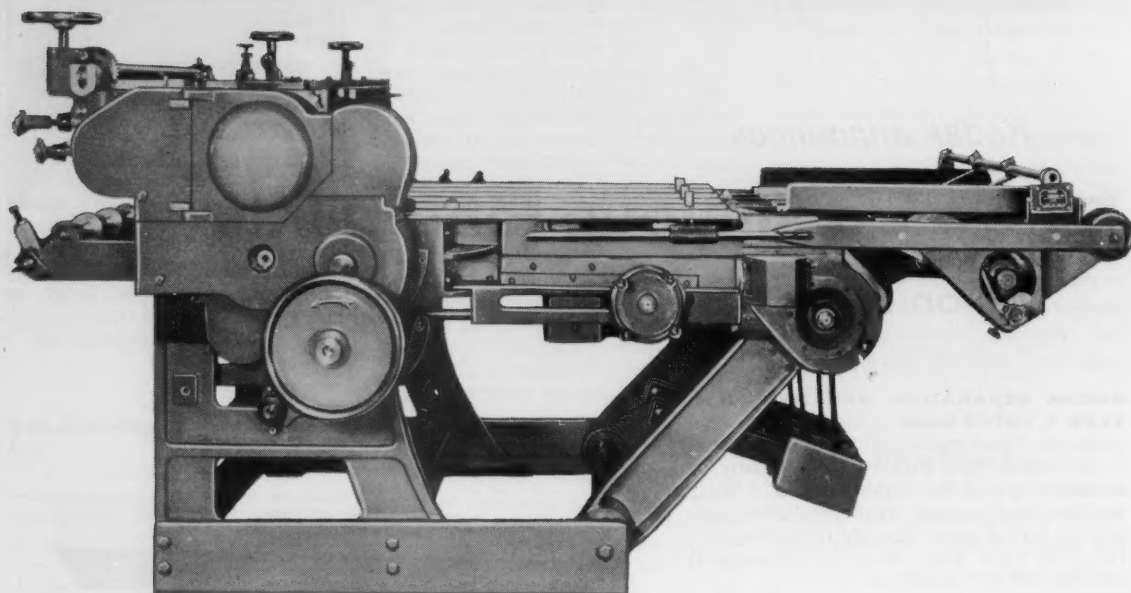
KODAK BLUE SENSITIVE MASKING FILM (ESTAR BASE). Photographically similar to Kodak 33 Positive Film (Estar Base), but on the thinner 4-mil Estar Base. Well suited for the overlay masks used in photogravure for color correction, for boosters, and for drop-out masks.

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METAL DECORATING

Variety of questions handled by NMDA

Metal Decorating Round Tables

AT THE 26th annual convention of the National Metal Decorators Association in Washington, D.C., last fall, a number of interesting comments on metal decorating problems, materials and techniques were forthcoming at the three round-table discussions held on the second day of the meeting. Space did not permit presenting this material earlier, so the highlights from these sessions are presented herewith.

1. Plates, Blankets and Inks

First Session: PLATES—Ralph Graham and Robert Schimmel; BLANKETS—Charles Lipscomb and Eugene Coate; INKS—George A. "Buck" Frank Jr. and Gilbert Stratton.

Question: What progress is being made with dry-offset for metal decorating, where so much more ink needs to be deposited than with paper lithography?

FRANK: Dry-offset, which originated about 10 years ago for paper, will eventually find its place and perhaps may have applications in our industry. For work that contains no halftones, especially on two and three color runs, it may prove feasible to run one of the impressions by dry-offset.

Q.: Are presensitized plates less expensive to make than deep-etch?

SCHIMMEL: Yes.

ALBERT MATERAZZI (from the floor): The problem in this regard is not how to keep the background of

the plate clean but how to keep the dampeners clean. A de-ionizing unit, which sells for about \$100, has been found to be useful in assuring uniform water. In some cases, the water thus treated will be purer than distilled.

Q.: Are the older type zinc surface plates convertible to the new wipe-on process that LTF has worked on?

SCHIMMEL: This subject is still in the experimental stage. Aluminum generally gives fewer problems, but zinc has the advantage of reuse.

COATE: Some work has been done with a coated tympan sheet as an offset blanket. High speeds were obtained. But pressmen are used to putting a lot of tension on the blanket, and this is a problem if tympan is used. As with the new zinc process, any new development must include an educational period if it is to be properly used by the men in the shop.

Q.: In printing black we notice small dust-like spots on some jobs.

STRATTON: You probably have a phenomenon known as "acrobatic ink," caused by long varnish in the ink. See your ink man for a remedy.

2. Presses, Ovens and Coaters

Second Session: PRESSES—Eric Abrahamson and Fred Adame; OVENS—James Burns and James Russell; COATERS—George Eitel and Walter Spies.

Q.: What is the latest information on fume incineration?

BURNS: This problem is always with us. Lately I have heard that several cities—Los Angeles, Brooklyn and Chicago—have been getting tougher.

RUSSELL: There are several techniques: (1) Counter odors (which don't really eliminate the fumes). (2) Water wash. (3) Incineration, sometimes at 1400°, but this can be expensive. (4) Catalyst used with reduced temperatures.

Q.: Has any progress been made to prevent ghosting due to pre-heat?

BURNS: Wickets, temperature and type of solvent are all involved. If the wicket temperature is too hot it may cause trouble. However, much progress has been made in this area.

RUSSELL: Must keep conveyor medium hot. Wicket pre-heat keeps conveyor chains, oven and wickets at right temperature.

Q.: Has any work been done on a sheet-fed coater for applying viscous materials?

SPIES: Our company has not been asked to do any work of this type, and I know of no such work underway.

Q.: What progress has been made in blanket spot-coating machines?

EITEL: Little progress in this country. The blanket for this work is similar to a press blanket. If too much pressure is applied, stretch will result.

JOHN MATHEWS (from the floor): In England, we are using a blanket type coater. We have used a gelatine-



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coated blanket for seven or eight years with good success. Intricate body work sometimes presents problems.

Q.: Are wicket coatings helpful?

BURNS: I wouldn't buy any press without wicket coating to prevent rusting. A number of materials can be used for this purpose.

RUSSELL: The wickets are usually painted with a silicone finish.

Q.: How often should an oven be cleaned?

RUSSELL: About every three months. Solvents vary. Usually insurance companies make a requirement of this type.

Q.: With the new lighter weights of tinplate, we need to use the lightest spring. Could the manufacturers indicate the correct spring by color coding or otherwise?

ADAME: Yes, we could make up a chart to give information on the use of each spring.

Q.: What problems arise in printing aluminum and the lighter weights of tinplate?

ABRAHAMSON: A vacuum arrangement to assure separation of the lighter sheets is helpful. Sometimes it is necessary to reduce press speeds a bit.

ADAME: With very sensitive side gauging, good speeds can be obtained with the lighter sheets.

Q.: How about a cooler or dehumidifier to keep the fountain solution constant on humid days?

ABRAHAMSON: I know of no system on the market. In some areas special units have been developed by decorators.

BURNS: Some decorators are using refrigerating units on some presses. These aid in running during summer months. In new installations with steel base plates, we have discontinued refrigeration, however.

3. Coatings, Rollers and Metals

Third Session: COATINGS — William Kerlin and Henry Bates; ROLLERS — Clarence Pyles and Bruce Hubbard; METALS — George McClain and Harley Van Vleet.

Q.: In the production of aluminum sheets, how is oil film controlled on the plate?

McCLAIN: We control rolling oil on the surface during the last pass. A slight amount of oil is needed to prevent "doubling" of sheets.

Q.: What is the best plating to put on rider rollers to prevent stripping?

PYLES: Copper plating.

Q.: Are plastic coated rollers (urethane) advantageous for metal decorating?

HUBBARD: Good for some uses, but may swell with certain chemicals.

Q.: Anything being done with high temperature coatings to prevent surface tack which picks up dust?

BATES: The formulator should include melamine to prevent this.

Q.: When will we have a universal roller?

HUBBARD: There are too many variables in swell, etc. When we get a universal coating, we'll get the universal roller.

Q.: To lacquer aluminum, should it be pre-baked or sized?

McCLAIN: Depends on the end use. Don't need pre-bake unless the sheet is very oily.

Q.: Why do alkyd coatings on aluminum lose adhesion on immersion in water.

BATES: This reaction is similar to what happens with iron under the same circumstances.

Q.: What about Durometer readings for coating rollers and press rollers?

HUBBARD: General rule is, the smaller the diameter, the softer the roller, for a given thickness. Also, for a thicker coating, a softer roller is indicated.

As in recent years, the reaction of NMDA members to these question and answer sessions was quite enthusiastic. Although the number of questions submitted beforehand was rather limited, many impromptu questions were handled from the floor during the discussion periods. Acting as quiz masters for the sessions were Robert Singley and Harold Lee. All three sessions played to a full house. ★

Continental Names Broomhead

J. W. Broomhead has been appointed general manager of production planning for the Metal Division of Continental Can Co. Mr. Broomhead succeeds Stewart A. Huge, who requested early retirement from the company.

Mr. Broomhead was formerly general manager of the North Pacific district in the firm's Pacific Metal Division. He started with Continental in 1944 as an industrial engineer, rose to Pittsburgh plant manager in 1952 and his previous position in 1956.

Standards for Aluminum Foil

Standards for aluminum foil in various laminations with paper and board are detailed in a booklet available from the Laminated Foil Manufacturers Association.

The booklet lists specifications for foil thicknesses, weights of papers commonly used in foil laminations, basic types of paperboards, methods of testing lacquers on foil, and a complete glossary of terms used by the industry.

Also included in the booklet is a page of conversion formulas — a guide to quick determination of foil requirements. Copies may be obtained from the association at 1002 Union Trust Building, Providence 3, R. I.

American Litho Advances Two

American Lithograph Co., Atlanta, Ga., has appointed both Burriss E. Richardson, production manager and Thurman DuVall, art director, as vice presidents of the company.

Nuclear Opens D. C. Office

Nuclear Corporation of America has appointed Fred G. Baur as manager of its newly established Washington office, at 1025 Connecticut Ave. Nuclear, which has its corporate headquarters in Denville, N. J., is a contractor to the military services and to industry in the fields of nucleonics, isotopes, rare metals, electron tubes, and semi-conductors.

NYLA Study Preparation Operations

A PANEL on preparatory operations was the feature of the December meeting of the newly formed New York Lithographers Association, an affiliate of the Metropolitan Lithographers Association, designed to serve small shops.

Members of the panel were Manual De Torres, Metropolitan Offset Plate Service, moderator; John Lederman, Michael Litho Co.; Harry Mueller, Litho Chemical and Supply Co.;

Larry Rosenstadt, Ardlee Service; and Howard Shadlen, Shadlen Litho-Plate Co.

To the question, "What other labor saving methods can be used when preparing mechanicals besides making them same-size and in double page spreads?" the point was made that the customer's paste-ups are important — good clean copy lowers price; poor copy should be rejected. "Windows" for halftones, and the use

of artist's tint sheets for Ben Day work were advocated; corner-marks for pages were preferred by some, but others advocated use of head and gutter margin marks for stripping guides.

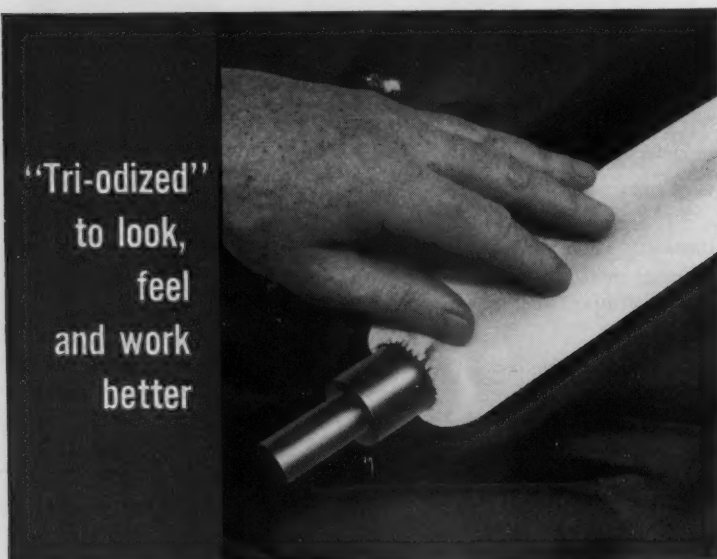
The question, "What can be done when the preparatory department must work under high humidity conditions brought out these suggestions: make plates during daytime; keep film as dry as possible; and coat plates with a solution of transparent asphaltum, or wax, to protect them from moisture. Slower plate whirling speeds were also advocated. A new chemical treatment to be used as a counter-etch was mentioned as making it easier to remove the plate stencil.

A general discussion of handling film brought out, that, for scribing lines, the hardener should be removed from the fixative when developing to give a clean edge to scribed lines. Plasticized paper film was mentioned as good for use with Vari-Typer composition; Autopositive film was advocated for making contacts.

The use of roll film saves about 12 per cent, the panel felt, but spoilage must be kept down by stocking all widths. On mention of "curl" as a spoilage factor, remedies given were the removal of hardener from the typo, and specifying emulsion on "out" side of roll for less curl.

Mistakes and their resulting costs can be avoided, the panel felt, by carefully adhering to a good procedure before turning jobs over to the preparatory departments. Advocated were: salesman's instruction reduced to writing, and later checked by him; key men of departments should get a verbal briefing; layouts should be checked for size, missing parts, etc.; art should be scaled both ways—before an order number is assigned and work put in progress.

To the question, "What is the best type of plate to print metallic ink on a 35 x 45" single-color press on Kromekote paper?", it was recommended that a presensitized or Lithure plate be used to permit running with less water and that acid in the etch should be cut down.



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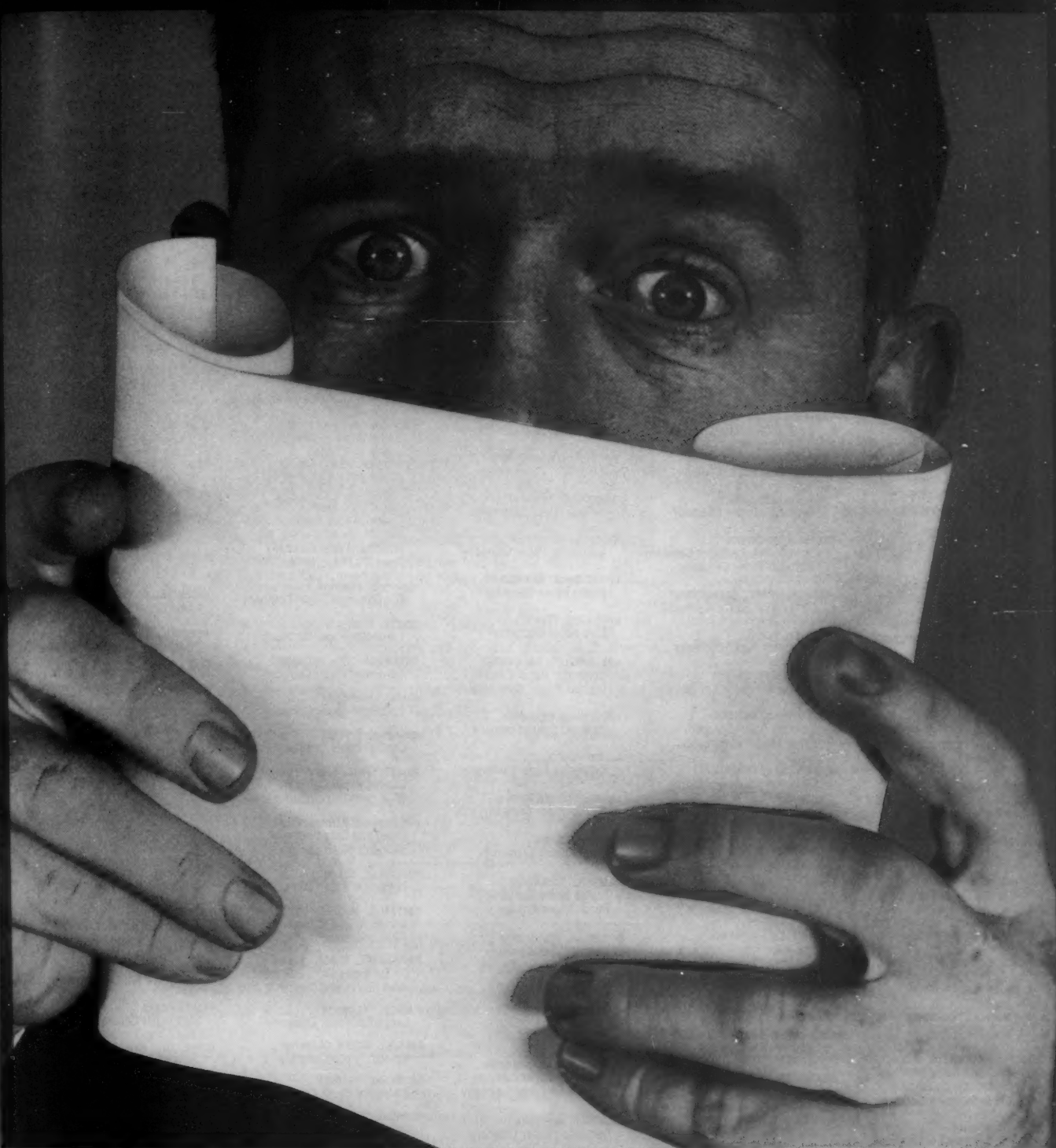
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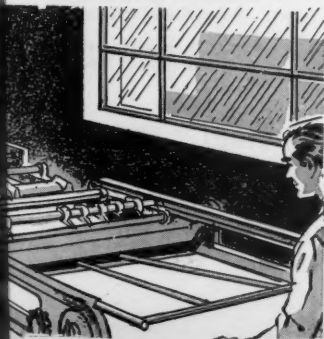
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LITHO CLUB NEWS

Plant Safety Featured at Twin City



Left: A Yuletide visitor spreads cheer at the Twin City Litho Club party in December. Right: Karen Holmbeck (left) 1960 Twin City Litho Club Queen crowns Shirley Marier as the 1961 Queen at the club's Christmas party.

ROY P. TYLER, service engineer and editor of the house organ *Harris Impressions* for the Harris-Seybold Co., gave a discourse on plant layout and plant safety at the December meeting of the Twin City Litho Club.

At this meeting were four charming ladies who were vying for the honor of becoming the Twin City Litho Club Queen at the annual Printing Week celebration. They were Judith Koland of the John Leslie Paper Co., Lois Kraft of the Walter C. Anderson Co., Connie Lundstrom of the Bureau of Engraving, and Shirley Marier, representing Minnesota Mining & Manufacturing Co. Miss Marier was chosen as the winner at the annual Christmas party.

The meeting was also election night and the slate of officers elected to serve for the ensuing year were: Fred Schulz, president; Andrew Anderson, vice president; John Gawlick, secretary, and Leo Holzinger, treasurer. Board of Governors are Allen Raditz, Rex Morgan, Donald Malone, Allen Werner and Edward Strong.

The newly elected officers will be installed at the January meeting, and a panel session which will cover all phases of the lithographic industry will be held. It will be a review of the four panel sessions that were con-

ducted during the past year. The members of the panel will discuss questions that developed as a result of these sessions.

The members of the panel will be: Camera and art, Richard Keller and Robert Kruse; stripping and layout, John Marshall and Robert Sicora; plates, Earl Jepson and Frank Tuckner, and press, Rex Morgan and Edward Sorenson.

Baltimore

Foil Printing by Offset

Kenneth M. Greenwill, Reynolds Metals Co., spoke about sheet-fed offset printing on aluminum foil laminates at the November meeting of the Baltimore Litho Club.

In his talk, Mr. Greenwill described the types of aluminum foil available for offset printing and the best way to run foils on press. Among the pointers stressed by him were the necessity for using a hard blanket with as little pressure as possible. Water should be kept at a minimum, he said, and a srtong ink used so that it can be applied sparingly.

New members of the club are Austin A. Orendorff, Jr., Albert M. Palewick, Donald W. Gothe, Roy W. Lankenau and Richard Hunt.

Philadelphia

King Addresses Club

Members of the Philadelphia Litho Club heard Howard King, of the Intertype Division of Harris Intertype, describe the values of photocomposition to the lithographer. He pointed out that, while the method has found widespread acceptance in the industry, only the surface of the subject has been really touched. In the future, he said, developments in the use of photocomposition will uncover the values of this new idea to commercial lithographers.

Nominated as new officers of the club are: Howard T. Harcke, Graphic Arts, Inc., president; Herman Britz, Printing Services of Philadelphia, Inc., vice president; Andrew Given, National Decalcomania, treasurer; and Joseph H. Winterburg, Philips and Jacobs, Inc., secretary.

New York

Hear About Densichron

Members and guests of the New York Litho Club, numbering 125, heard talks on the Densichron density meter and the Blu-Ray proof printer at the club's December meeting.

C. R. Williams, sales manager of the W. M. Welch Scientific Co., Chicago, discussed the company's Densichron with emphasis on the use of this instrument to maintain quality control in the pressroom by measuring the ink film thickness and paper brightness.

Once the original settings are established for paper brightness and solid ink coverage, he said, any sheet can be checked for variation and percentage of change. The Densichron has also effective use in camera and art departments, where it is used to determine highlight and shadow density, and range of black and white or color separation negatives.

Allen Martini, president of the Photo Copy Co. of New York, ex-



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LITHO INKS



President's Message

By Rae H. Goss

President, National Association of Litho Clubs

SINCE the annual meeting of NALC, in June, your association has taken several important steps forward. These include the hiring of a professional management service to act as a permanent executive secretary and permanent headquarters for the organization, and the establishment of preliminary plans for an educational program to consider some of the management problems encountered in the industry.

* * *

The company selected to act as secretary is the Robert J. Mayer Co. of Chicago, as reported in this magazine in November. The contract, which was approved by the Executive Committee and the Standing Planning Committee at a meeting Oct. 7 in Chicago, is for a 36-month period. A clause in the contract calls for renegotiation at the end of one year and a 60-day cancellation period.

By this move we hope to achieve the following goals: (1) Establishing a closer relationship and better cooperation between various clubs of the national body. (2) Building stronger local clubs, which we feel are essential to NALC. (3) Promoting the interchange of new ideas, techniques and developments in both the production and management phases of the industry. (4) Gaining greater recognition of the importance of technical and supervisory personnel. (5) Establishing a closer liaison between NALC and allied professional groups and trade associations; and (6) Establishing a smooth running headquarters office, operating on a day-by-day basis, for the benefit of all members.

* * *

Tentative approval has been given to an educational program called Lithographic Arts Management Institute, which would be held at the University of Michigan. The university

has offered NALC its complete facilities, including professors, classrooms, dormitories, and dining and recreational facilities, in order to run a seminar on top-grade management training.

They propose to research the industry and call on top management people over the country to give their time to the program. The seminar would run five days, Monday through Friday, six hours per day. After the seminar, each person attending would select a subject in the management field which he wishes to pursue, and he would then take a one-year correspondence course in that subject.

The university feels that such a program, pursued over the course of about three years, would give the individual as good a training in management as can be had. The cost of the program, including the one-week seminar and the correspondence course, would be approximately \$250. This includes room and board at the seminar.

* * *

I am asking the board of governors of each of the local clubs to make a survey of its members and determine what portion are in semi or top management. I think we will find a great number who need and want a program such as this.

* * *

There seems to be a great amount of interest, in many sections of the country, in running lithographic clinics such as the Southwest Litho Clinic. We are proposing one for the Midwest, one for the Northeast and one for the Southeast. Each clinic would be designed to meet local educational and technical needs. We feel this would take the place of our educational meeting at the conventions and hold the convention to a strictly business meeting. This would be a great financial savings.★

plained the benefits of the compact, positive working Blu-Ray proof printer, manufactured by Reproduction Engineering Corp. of Essex, Conn. According to Mr. Martini, this printer is simple, fast and fool-proof to operate. A variable contrast control is used to insure sharp, clean proofs.

The next meeting of the club will be Jan. 25 at the Hotel Shelburne. Election of officers and a board of governors will take place. Featured speaker of the evening will be Ralph Cole, president of Consolidated Lithographing Corp.

Milwaukee

Impact of Photocomposition

Howard King of the Intertype Division of Harris Intertype Corp., explained the "Impact of Photocomposition" on printing in general and lithography in particular at the November meeting of the Milwaukee Litho Club.

Elected at the December meeting of the club were John W. Miller, L. Breithaupt Printing Co., president; Ned Pritchard, H. C. Miller Co., vice president; Rudolph Bartz, Krus Engraving Co., treasurer; Henry Reger, Arrow Press, secretary; and Raymond Kapke, E. P. Schmidt Co., Sgt.-At-Arms.

Leon Ogren, marksmanship instructor for the National Rifle Association, gave an address on the safe use of firearms, at the club's Christmas party, Dec. 12.

Chicago

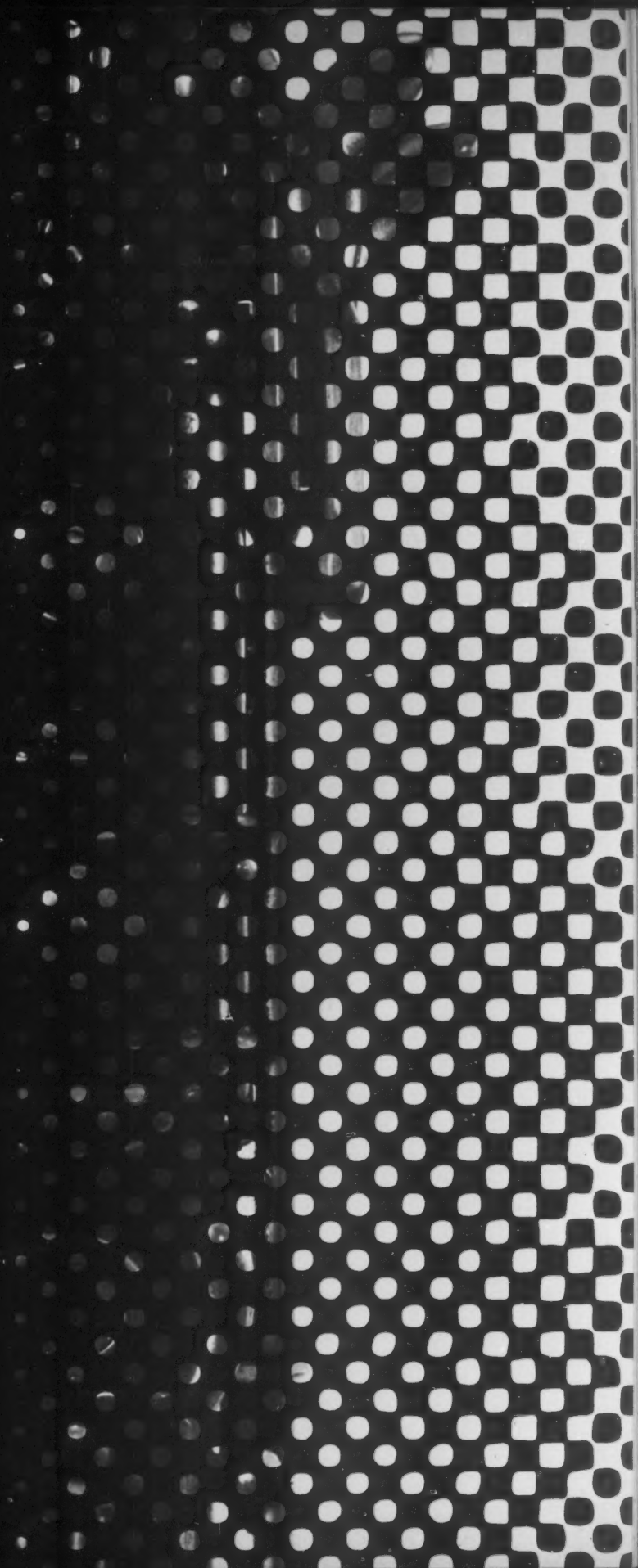
The uses and the applications of densitometers in the lithographic industry were outlined and discussed by Charles Williams of the W. M. Welch Scientific Company at the November meeting of the Chicago Lithographers Club. Mr. Williams's presentation was illustrated with colored slides.

Optical density, which is really a generic photographer's term, he said, is the basic measurement made with

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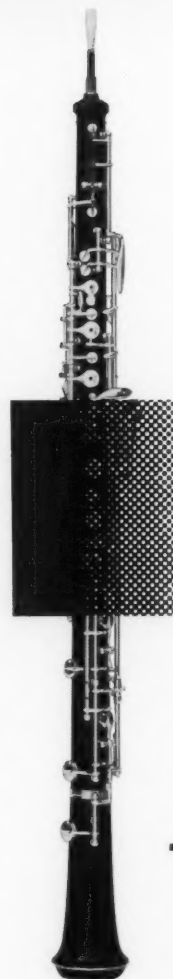
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Is Your Litho Club Getting Publicity?

IS your Litho Club getting all the publicity it should in MODERN LITHOGRAPHY? Do you have a regular correspondent sending in news items and photos of club programs and social activities? Many clubs do, and they are rewarded with good coverage on these pages month after month. Others have sporadic or non-existent publicity programs.

If your club is one of the former, keep up the good work. If you haven't been noticing writeups of your club activities, however, how about appointing a correspondent at your first fall meeting, to remedy the situation for the coming year.

As a help to him, here are some tips on preparing material for MODERN LITHOGRAPHY:

1. Type your article or notes, double-spaced, on one side of a sheet of paper.
2. Include the name of the club, the date of the meeting or social event, complete names (no nicknames, please) of speakers, new members, officers, committee heads, etc.
3. Rather than just giving the title of the talk, along with a comment like "it was thoroughly enjoyed by all," try to take down a few direct quotes from the speaker.
4. Include good black and white glossy photos, when available, being sure to identify all persons on the back (use soft pencil) or on an attached caption.
5. Try to have your material in our hands by the 15th of the month preceding the issue. Best general rule is to mail it *a day or two* after your meeting, to be sure to get full coverage in our next issue.
6. Mail your article (or notes) to the Editor, MODERN LITHOGRAPHY, Box 31, Caldwell, N. J.

densitometers. Essentially a densitometer consists of a light box or light source, a photocell, an amplifier and meter for numerical read-out purposes. These instruments are used to measure either reflected or transmitted light or both. A special feature of the Densichron densitometer is the electro-magnet around the phototube which converts the space current in the phototube to an alternating frequency of 120 cycles-per-second, which permits the use of an AC amplifier. This output is directly proportional to the light intensity, and is capable of stable high-gain amplification with almost instantaneous response which can only be attained with AC amplifiers.

Mr. Williams pointed out that several types of meter scales are used, depending on the application. They include logarithmic or linear scales, percentage reflectance, optical density and time scales. Filter wheels are included in both transmission and reflection type instruments to facilitate measurement of color transparencies or prints and process inks when printed on paper or other media. These filters are the conven-

tional gelatin type used in photography.

Mr. Williams also went on to describe transmission and reflection densitometers and their use.

Officers for 1961 were elected at the November meeting. They are: James K. Martin, president; Richard F. Boever, first vice president; John L. Jachimiec, second vice president; William L. Byers, treasurer, and Eugene C. Bulinski, secretary.

New members, admitted at the meeting, are: William Stahlke, Veritone Co.; Thomas O'Mahoney, Rightmire Berg; Joseph Newman, J. L. Clark Mfg. Co.; William T. Cunnally, Fargo International, and Anthony Zurek, Process Color Plate.

Preliminary arrangements for the January and February 1961 programs have been completed by educational chairman John Dudley. The January program will be presented by the DuPont Co. and is to cover the new Dycril plate, its relation to and its use in lithography. February's technical session will be presented by the Miehle Division of Miehle-Goss-Dexter.

Litho Club Secretaries

- ATLANTA**
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AnSCO

Reprocopy

Boston Hears Talk on Stripping Problems



F. Burt Reed (left) Boston president, with (l.-r.) Charlotte Canzano, Miss Boston Litho Club 1960, Margaret Welch, Miss BLC 1961, and James Hodge, superintendent of Fine Impressions Inc., where Miss Welch is employed as a technical illustrator.

THE December meeting program of the Boston Litho Club featured a camera and stripping night, with John M. Lupo, Jr., of Di-Noc Chemical Arts, Inc., talking on the tried and true plus the new procedures for stripping. He pointed out some of the problems of stripping for everything from Multilith to multi-color presses and showed descriptive slides of the various methods of black and white and color stripping.

Mr. Lupo showed how to use a pin register system on original art, through camera, stripping, plate and press.

The new Harris-Seybold "Pre-Register System" was on display. Also, a display of actual jobs that required unusual stripping methods, such as "the checkerboard system," "the domino method," as well as wet stripping and blue key progressives was on view.

Margaret Welch, a technical illustrator with Fine Impressions, Inc., Boston, was chosen as Miss Boston Litho Club, 1961, by the New England Printing Supply Salesmen's Guild. She succeeds Miss Charlotte E. Canzano, receptionist, Acme Printing Co., Inc., Everett, Mass.

On Jan. 21, during Printing and Publishing Week of New England, the Boston Litho Club will present its third annual Lithographic Workshop, a seminar on lithography, at the Boston University School of Public Relations, 640 Commonwealth Ave. Sessions will start at 9 a.m.

The club began a six-week course on stripping, Jan. 9. Classes are being held at the Boston Trade School, 550 Parker St., Boston, two nights a week.

Raymond Faulkner, in charge of stripping, camera and platemaking department, Buck Printing Co., Boston, and Benjamin Kidder, supervisor, stripping department, Forbes Lithograph Mfg. Co., are instructors for the course. Many members of the Litho club have already registered for classes.

The club's annual Ladies' Night-Valentine party will be held at the Statler Hilton Hotel, Feb. 11.

New members of the club are: William Marshal, supervisor, Acme Printing Co., Inc.; Joseph A. Bello, foreman, John Tamasco, cameraman, Carlo Tanzilli, pressman, and Edward Murray, stripper, all of the Winthrop Printing & Offset Co.; and Irving Garfield, production manager, and Arthur S. Fusco, stripper, both of the New England Imprinting & Offset Co., Inc.

Canada

LTF Holds Toronto Forum

More than 500 lithographers and management personnel attended the Toronto Lithographic Forum held in November in the Royal York Hotel. The group, which came from many points in the province, listened to members of the Lithographic Technical Foundation, who demonstrated and spoke on the subjects of making better halftone, seeing light and color, color reproduction, how to make better offset plates, color separation and masking, paper and ink troubles and how to avoid them, handling plates on the press, and instruments for quality control.

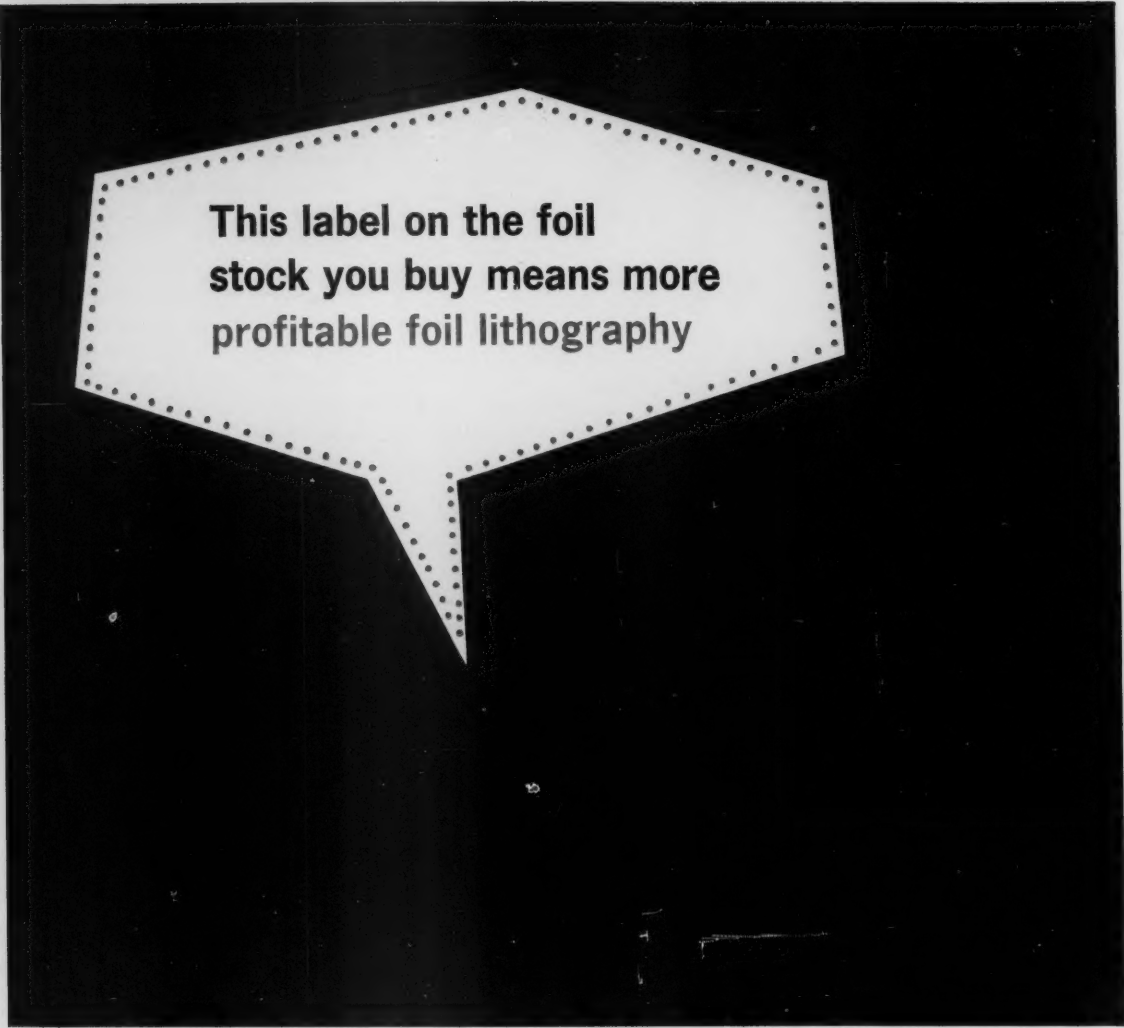
Several of the LTF audio visuals were used to demonstrate methods and techniques. There was also a discussion and question and answer period. The forum was conducted by Michael H. Bruno, William Webber and Frank Preucil of the Foundation.

The forum was sponsored by the Ontario division of the Canadian Litho Club with the cooperation of Toronto Local No. 12 of the Amalgamated Lithographers of America.

In addition to the 500 who attended the two-day forum, nearly 200 applications had to be refused. A similar session is scheduled to be held soon in London, Ont.

At the LTF Forum held recently in Toronto under the sponsorship of the Canadian Litho Club, Toronto Division are (seated l.-r.) Frank Johnson, Roy Turner, president of Local 12 of LA, William Prouse, general chairman, Robert Elgie, (standing l.-r.) Allan Walker, Ivan Toutloff, Reginald Byford and James Dales.





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ANALITH foil stock is *custom-produced*, order by order, by Anaconda Aluminum to meet the specifications of your work. It starts with careful rolling of the foil itself to exactly the proper, uniform thickness. It is then laminated to the proper paper backing for best lithographic reproduction and the ink-receptive coating

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Anaconda Aluminum does everything with foil but print it, so your needs for special coatings, special colors, or special laminations can be met precisely for any lithography job. Foil stocks custom-produced for other types of printing processes are also available.

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Cincinnati

Payne Elected President

Buford Payne of Tri-State Offset Co., was elected president of the Cincinnati Litho Club at a monthly dinner meeting on Dec. 13 in the Golden Goose Restaurant in nearby Kentucky. He succeeds Russell Esberger. Other new officers are: First vice president, Harold Biddle, Standard Publishing Co.; second vice president, Paul Granger, Metropolitan Printing Co., Inc.; secretary, Jack Kirst, Aljen Associates, and treasurer, Anthony Bianchi, ABC Lithographic Co.

Elected to the board of directors for two-year terms were R. W. Fischer, Technicraft, Inc.; James Macke, Macke Brothers, and Gordon Wickfeldt, Nielsen Lithographing Co.

The speaker at the meeting was Thomas Connelly of Springfield, O., a sales representative for the Vulcan Blanket Division of Reeves Brothers Co. His talk on the manufacture and care of press blankets elicited numerous questions from members of the audience.

Installation of the new officers will be a feature of a dinner meeting on Jan. 10 in Guidara's Restaurant, when the speaker will be Robert Schroeder, sales supervisor for Seagram Distilleries Co., who will give an illustrated talk on the history and production of whiskey.

The club's annual dinner dance will be held on Jan. 14 at the Hartwell Country Club, with Hal Knippenberg of Advance Decalcomia Co. serving as arrangement and reservations chairman.

Kansas City

Discuss Blanket Problems

The January meeting of the Kansas City Litho Club featured a talk on rubber blankets by Walter McEvilly, sales manager, Vulcan Rubber Products Division of Reeves Brothers.

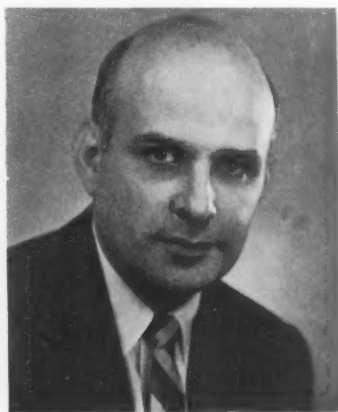
On Jan. 27-28, the Kansas City Club will be host to the mid-year council meeting of the Southwest

region of the National Association of Litho Clubs. Delegates from ten clubs in the region, as well as three national officers, are expected to attend.

The club held a Christmas dinner-dance Dec. 5, which featured entertainment and prizes.

Mayer Named NALC Sec.

Robert J. Mayer, principal of the Robert J. Mayer and Co., Chicago association management and public



Robert J. Mayer

relations firm, which has been appointed permanent executive secretary for the National Association of Litho Clubs, has had 15 years' experience in these fields.

Mr. Mayer has worked with such trade and professional groups as the American Production and Inventory Society, American Society of Medical Technologists, American Electroplaters Society, Association of Architectural Hardware Manufacturers, Chicago Electroplaters Institute, Industrial Management Society and Professional Photographers of America.

He is an active member of the Association Executive Forum of Chicago and the Chicago Association of Commerce and Industry. He served in 1960 on the advisory board of the International Convention Planning Exposition.

Boyle Addresses KC-PIA

Hal Boyle, Kansas City born writer and humorist, will be featured speaker at the Printing Week dinner meeting Jan. 16 at the Muehlebach Hotel.

The dinner will be sponsored by the Kansas City Printing House Craftsman's Club, the Printing Industries Association of Kansas City, and the Printing Executives Club.

Mr. Boyle, who started his career with the Associated Press in Kansas City, moved to New York, and today his daily column is carried in hundreds of newspapers across the country.

Mid Season Meetings

The mid-season meetings of the Council of Administration of the National Association of Litho Club will be held Jan. 27 and 28 in Philadelphia, Ann Arbor, Mich. and Kansas City.

It is expected that the major topics of discussion will be the effective utilization of the newly acquired executive secretary and the program and administration of the planned educational program.

The local clubs in each of the meeting cities will be host to the administrators. The three-way telephone conversation, which has been used in past years, will be dispensed with this year.

Open Management Courses

A large group of members of the Graphic Arts Association of Cincinnati, Inc., have enrolled for two educational courses to begin during January. Opening on Jan 8, a 21-week estimating course will be conducted in the Cincinnati Club by Ervin Hurr of the Diamond National Corp., Middletown, O., and beginning on Jan. 19, John D. Rockaway, the association's managing director, will conduct a 13-week course in the association's assembly room on foreman-management relations.

Manz Installs Giant Press

A perfecting, four-color, web-offset printing press, reportedly the largest in the nation, has been installed by the Manz Corp., Chicago. The press was specially designed and custom built by the George Hantscho Co. Mt. Vernon, N. Y.

The press, which cost half a million dollars, required more than three months to install.



650,000 AUTOMOTIVE MAGAZINES was the initial production run for this new Harris-Cottrell ten-color, 35 x 50" web offset press at Safran Printing Company, Detroit. At right, folded, 24-page books are being delivered. Note control console at left. The press is capable of running five colors on each side of the web simultaneously, at 1200 feet per minute.

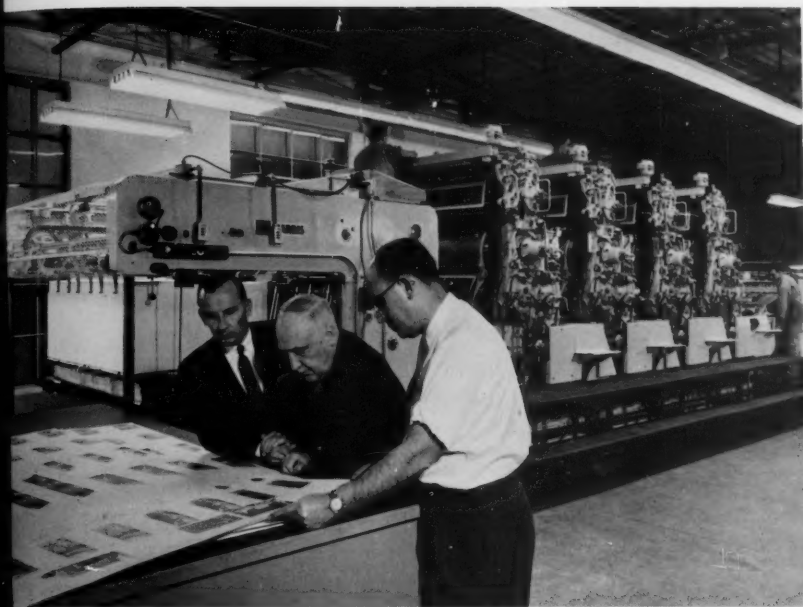
WHAT'S GOING ON AT H



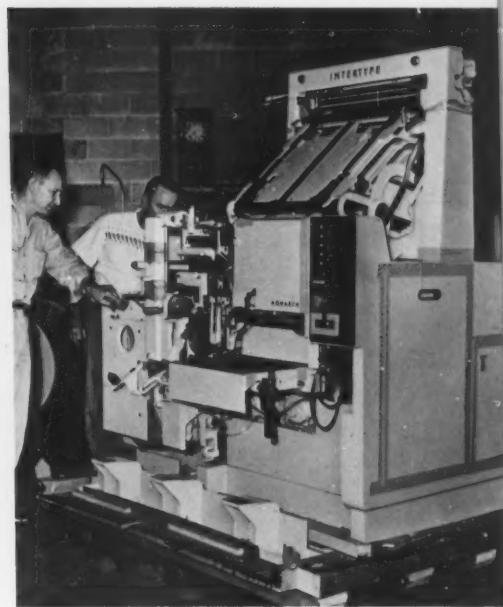
TEST EQUIPMENT FOR AIR FORCE world-wide network radar installations and other microwave systems is being calibrated by this technician at the USAF Calibration Laboratories in Dayton, Ohio. He is surrounded by standard "catalog" equipment made by PRD Electronics, Inc., a subsidiary of Harris-Intertype.



LISTENERS ARE PLEASED with the hi-fi signal quality received from Gates Radio's FM-1B 1000 watt transmitter at WFLM-FM, Fort Lauderdale, Florida. Photo shows the modern one-room studio operation using Gates 16" turntables mounted in a Gates CB-4 "Horseshoe" Desk. A Gates Studioette Speech Input Console is in the center. The station is owned by Findlay Publishing Co., Findlay, Ohio.



BIGGEST LITHOGRAPHIC PRESS in Canada is this Harris 54½ x 77" four-color, installed at Ashton-Potter, Ltd., Toronto. Here are H. W. Ashton (Vice President), C. E. Ashton (President), and E. Shrank (Pressroom Superintendent) inspecting one of the first press sheets.



DELIVERED ON SKIDS to the *News-Herald*, Panama City, Florida, is a new Intertype "Monarch" typesetter. It's the world's first 14-line-a-minute keyboardless slug-casting machine, operated exclusively from punched tape. Typesetting is 25% faster than by standard tape-operated machines.

T HARRIS•INTERTYPE



ALMOST TWICE AS FAST as conventional "flatbeds", the new Harris "Wrap-Around" letterpress prints at speeds up to 8,000 iph. Printers and lithographers are invited to study the new printing and plate-making techniques involved, at Harris-Seybold's "Wrap-Around" Technical Center in Cleveland, Ohio.

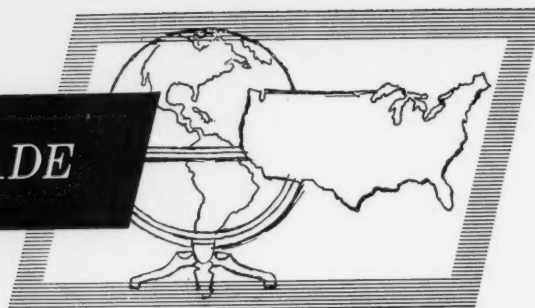


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NEWS about the TRADE



Philadelphia Plans Graphic Arts Conference

PLANs are being made for the annual Philadelphia Graphic Arts Conference in March. The first announcement of the meeting has been made by M. M. Muntz, of P. H. Glatfelter Co., Spring Grove, Pa., program chairman. The Litho Club of Philadelphia is one of the sponsoring groups.

Mr. Muntz has sent a questionnaire to interested parties asking them to make suggestions on the type of meeting to be held. A preference is requested for: an all-day session on Friday, March 17, beginning at 9:30 a.m. and ending with a banquet in the evening; or a split meeting starting early Friday afternoon with a banquet Friday evening and resuming

sessions Saturday morning.

Program choices are also offered. Possible topics include: printing plates, paper plates for offset, etc; newer developments which have reached industrial development and production stages in paper, ink, printing and press; quality control techniques to evaluate printability; and color control.

A panel composed of press manufacturers will discuss reasons for selecting one method over another; coated paper problems; magnetic inks; flash dry solvents for fast printing inks; and No-Carbon Required paper; delayed action heat-sealing papers; and relative humidity of paper and press room.

In addition, the company declared a 50 percent stock dividend to shareholders of record Dec. 13. Thereafter it is anticipated that the regular dividend will be 25 cents a quarter on \$1 a year, which is the equivalent of \$1.50 a share before the stock dividend. This compares with the previous regular dividend of \$1.40 a year. The additional shares resulting from the stock dividend will be mailed Jan. 24.

American Plant Trebles Workers

American Greeting Card Co., located at Reno, Pa., has more than tripled its employment in one year.

The firm opened in the industrial park as part of the development program in the county a year ago. The company has 125 employes on its payroll as compared to 40 when it opened in 1959.

Brett Advances Goodyear

Paul D. Goodyear, with the sales staff of Brett Lithographing Co. since



Paul Goodyear

1953, has been promoted to sales manager, with headquarters in the company's Long Island, New York, plant. He is an active member of the Young Lithographers Association of New York, of which he is a member of the board of directors and treasurer. He also serves as treasurer of St. Joseph's College Alumni Association.

Brett is a subsidiary of Diamond National Corporation.

Start Chi. Contract Negotiations

The Chicago Lithographers Association and Local 4, A.L.A., plans to begin negotiations on Feb. 1 for a new contract which will go into effect May 1. Wages will be discussed, said Archie A. Macready, executive director of the association. Coming up, also, will be a re-examination of the union-management joint education program with a view to strengthening it in the light of experiences following a full year's operation.

S-T Declares Larger Dividend

Directors of the Stecher-Traung Lithographic Corp., Rochester, N. Y., declared a regular quarterly dividend of 35 cents a share plus an extra 60 cents a share payable Dec. 27 to shareholders of record Dec. 13. This makes a total dividend of \$2 in 1960 as compared with \$1.60 in 1959.

Island Names Mahoney V.P.

Thomas P. Mahoney has been appointed sales vice president of Inland



T. P. Mahoney

Lithograph Co., Chicago advertising color printers.

Mr. Mahoney has been active in all phases of the graphic arts field since 1925, most recently with American Offset Corp. as executive vice president.

He is past president of the International Association of Printing House Craftsmen and is a member of the executive board of the Chicago Council of the Boy Scouts of America.



TWO-COLOR PROCESS ON ESOPUS TINTS!

- This 2-color insert printed by offset on 23 x 29 ATF Big Chief
- Photos by Sarra, New York
- Dual-Color separations by Pictura, 480 Lexington Ave., New York.
- Paper: Cantine's Pastel-Coated Esopus Tints (Peach) 25 x 38-80 (160 M). Sold by Cantine Merchants
- Made by The Martin Cantine Company, Saugerties, N. Y.

Savings gained by 2-color process on Esopus pastel-tinted coated papers enable many jobs of printing to be produced in beautiful, satisfying color which otherwise would not be attempted at all because of elements of time or expense. Step up the quality, quantity and effectiveness of your printing by using this modern facility.

ESOPUS TINTS TEXT

	Canary, Green, Blue, India, Pink, Peach, Goldenrod, Ivory
BASIS	23 x 35 25 x 38 35 x 45
70	119 140 232
80	160 266

ESOPUS TINTS COVER-BRISTOL

	Canary, Green, Blue, India, Pink, Peach
BASIS	20 x 26 23 x 29 26 x 40 23 x 35
80	160 205 320 248

Cantine's

PASTEL COATED

ESOPUS TINTS



TWO-COLOR PROCESS ON ESOPUS TINTS!

CANTINE'S COATED PAPERS

FOR LETTERPRESS

HI-ARTS	VELVETONE DULL
ASHOKAN	ESOPUS TINTS TEXT
M-C FOLDING BOOK	ESOPUS TINTS COVER-BRISTOL
M-C FOLDING COVER	ESOPUS POSTCARD
ZENA	SOFTONE

FOR OFFSET

HI-ARTS LITHO C.15.	CATSKILL OFFSET C.25.
ZENAGLOSS OFFSET C.25.	ESOPUS POSTCARD C.25.
ZENAGLOSS COVER C.25.	ESOPUS TINTS TEXT
LITHOGLOSS C.15.	ESOPUS TINTS COVER-BRISTOL
CATSKILL LITHO C.15.	VELVETONE DULL C.25.

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Photographs, separations, plates, proofs and corrections for printing like this can be made in a matter of days or even hours instead of weeks. And produced by either letterpress or offset as fast as presses run.

There are eight Esopus Tints to choose from: Peach, Canary, Blue, Pink, Green, India, Goldenrod, and Ivory. Sold by Cantine merchants everywhere. Samples and production information free on request.

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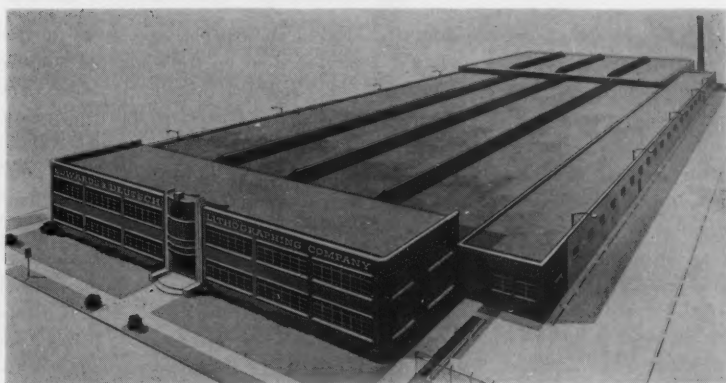
THE MARTIN CANTINE COMPANY, SAUGERTIES, N. Y.

Cantine's

PASTEL COATED

ESOPUS TINTS

Edwards and Deutsch Moves to Cicero



Artist's sketch of the new Edwards and Deutsch plant in Cicero, Ill.

EDWARDS AND DEUTSCH, 64-year-old Chicago lithographing firm last month moved from its plant in that city to a remodeled building in nearby Cicero, Ill.

Located at 2320 S. Wabash Ave. in Chicago since 1906, the firm outgrew its old building, to which no major structural changes had been made since the addition of the third and fourth floors in 1912.

The new quarters at 4633 W. 16th St., Cicero, erected about ten years ago and remodeled to meet the firm's requirements, increase the firm's work space from 70,000 to 102,500 square feet, with another 65,000 square feet available on the property for future expansion. Cost of the moving and remodeling was more than \$1 million.

The new plant also provides air-conditioned offices and complete temperature and humidity control.

In addition, the design of the red-brick, concrete, and glass building—combining a one-level factory and a two-story office section—eliminates costly elevator operation in the handling of paper tonnage and makes streamlined production possible.

Most of the 175 employees remained with the firm when it moved.

One of the Chicago area's medium-sized lithographing establishments, the company operates 14 Harris presses, comprising two 52 x 76 four-color, three 42 x 58 two-color, three 41 x 54 two-color, two 41 x 54 one-

color, and four 44 x 64 direct-rotary.

Other major equipment includes a Harris-Seybold 84-inch cutter, a Lanston 42½ x 42½ precision process overhead camera, a 31-inch Consolidated precision process camera, a Huebner-Bleistein 90-inch plate whirler, a Lanston-Monotype photo composing machine for 64 x 80 plates, two Zarkin-Zenith plate-graining machines (70 x 101 and 84 x 150), and a Kenneth-McAdams 30-inch perforating machine.

Receiving and shipping operations are facilitated by the plant's location on a railroad siding and by the installation of pneumatically controlled doors and a hydraulically controlled platform lift in the loading dock.

An overhead crane and adjustable steel beams make for efficiency in the storage of paper supplies and completed jobs.

All areas have fluorescent lighting. Plant floors are of treated cement. Movable steel partitions permit fu-

ture adjustment of office space.

From the beginning, the company has confined its production to lithography. According to Arthur F. Meding, president, the company has produced practically everything that can be done by lithography on paper or cardboard, from seals the size of postage stamps to 24- and 30-sheet billboard posters used in outdoor advertising.

In the early days, when the plant produced mainly advertising posters

In the early days, when the plant produced mainly advertising posters—such as those put up on the sides of barns to promote Bull Durham, circuses, and patent medicines—lithography was done on stone or zinc.

Today, they specialize in creative advertising material, particularly external company publications, while turning out a regular schedule of labels, calendars, seals, catalogue inserts, counter cards, booklets, and billboard posters.

Company officials believe the firm is one of the few lithographers in the United States which still does its own color processing and plate making. "In fact," says Mr. Meding, "that is one of the main reasons we're still able to uphold our 50-year-old slogan 'Color Reproductions of Quality.'"

Mr. Meding, who joined the firm in 1919 and became secretary in 1933, succeeded to the presidency in 1951.

Principal founder of the firm was Joseph Deutsch, who went from the East to Chicago in 1891, with a youthful background in printing and lithographing. The company origi-



John H. Huse (left) executive vice president and Arthur F. Meding, president of Edwards and Deutsch.

nated in a factory building on Clinton St. in 1896 as Edwards, Deutsch & Heitmann, acquiring its present name upon the retirement of Paul Heitmann in 1906. Charles Edwards—a grandson of Ninian Edwards, first governor of Illinois—sold out in 1911. From the start, Deutsch had been the dominant figure, and he continued as president and main stockholder until his death in 1933.

In its first year the firm did a \$50,000 business, with only a handful of employees. During World War I, when its output was mainly war work, the company employed 250 persons and did a million-dollar annual business, turning out more than 103 million posters and other pieces for such agencies and organizations as the Treasury Department, the Food and Fuel Administrations, the Red Cross, the YMCA, and the Salvation Army.

Today, with a considerably smaller staff, annual sales total almost \$6 million.

The company has held many of its accounts for decades. Its oldest, says John Huss, executive vice president—who started with the firm in 1910—is National Biscuit, for which it has been producing advertising materials since 1896. Among the 50-odd accounts served for 20 years or more are other national advertisers, such as Pure Oil, Schlitz, Jantzen, Caterpillar, Sunkist, and Coca Cola. One of the suppliers of Christmas seals to the National Tuberculosis Association since 1920.

Executives of the company, in addition to Messrs. Meding and Huss, are Fred C. Cleland and Dean Milburn, vice presidents for sales; George V. Brown, vice president in charge of manufacturing; and Bruno Weglarz, controller.

Employees Reject ALA Bid

Employees of the Delta Lithograph Co., Van Nuys, Calif., voted 12 to 6 during December to reject the bid of Local 22 of the ALA to act as bargaining agent in an election held by the NLRB.

Saunders Traces Web-Offset Development for MLA

THE underlying reasons for the tremendous surge in web-offset press production during the last few years were presented to the members of the Metropolitan Lithographers Assn. at their monthly dinner meeting Nov. 22 at the Hotel Roosevelt. Stanton C. Saunders of the Cottrell Co., the web press subsidiary of the Harris-Intertype Co., who spoke on "Web-Offset Today," sketched a verbal background to web-offset production growth. With a large display on panels of current specimens, he showed what is being printed now by web offset, demonstrated the high quality of web press work today, and showed the various types of media and production for which web presses are now used.

In the last four years, Mr. Saunders stated, more engineering has gone into web-offset presses than in all previous web history. In addition to better made presses, this has resulted in the simultaneous running of several webs of paper through presses, and in a wider range and choice of color on selected pages. The basic improvements in litho quality, he added, had not been neglected in the web press field.

On the user's side, Mr. Saunders pointed to the growth in periodical advertising and to the upsurge in consumer publication circulation, both of which have resulted in new markets for web-offset production. The weekly newspapers, he added, are now using "service centers" where a single offset web press was turning out as many as 56 weekly newspapers for which inexpensive forms of cold composition are used. With offset now the dominant process used for the various types of advertising production, web presses are getting a good share, particularly for multi-color catalogs and other folded pieces. Web-offset presses, he also added, are now turning out a volume of illustrated books which run into large print orders.

A factor here, Mr. Saunders stated, is a wider range of papers suitable for web production, running from

35-lb. newspaper up. Some of the types used on webs are not suitable for sheet-fed presses, he added. The economy of paper supplied in rolls is a factor, and while high paper spoilage can wipe out this economy, good web press crews are holding spoilage down to 3 and 4 per cent, he said.

The basic lithographic developments and improvements have been applied in the web field, Mr. Saunders pointed out. The long-life plates have helped, as have the improved deep-etch types of plates, but even the pre-sensitized and wipe-on plates are used for some work. Both the finer grain and no-grain plates are in use.

Research, he stated, has solved the problem of cracked plates resulting from high speeds—the solution was found to be more accurate plate cylinders.

Dampening action has been improved on webs. A new principle of dampening which holds promise is a revolving ductor brush which gives a spray application without touching the plate.

Improvements in blankets have played an important part. Together with better engineering, the blanket-to-blanket printing unit principle now gives as good work as metal impression cylinders, he stated. Two new types of blankets hold promise of eliminating the trouble from crushed blankets: the Dewey & Almy two-piece blanket with removable surface, and a rubber on metal sheet now in experimental stage.

Another important improvement contributing to the increase in use of web offset, said Mr. Saunders, is shorter makeready time. As an example, he cited 51 minutes for eight plates on a particular job. For some types of work, he said, webs can do in two days with what sheet-fed requires two weeks.

The big job ahead, he said, is the matter of developing skills for web-offset production—the training of crews is most important. One national printing association is reported as sponsoring web operation training in several schools.

NLRB Hears "Hot Cargo" Case

Late in November the National Labor Relations Board heard charges by employers in San Francisco and Miami that the most recent contracts signed in those cities with locals of the Amalgamated Lithographers of America contain clauses which violate the section of the Landrum-Griffin Act prohibiting "hot cargo" or "struck work" clauses in union contracts.

Counsels for the employers charged that while the contracts in question do not contain actual "hot cargo" clauses, certain clauses, which are contained, achieve the same effect.

The clauses being argued provide for the union to reopen the contract in the event the employer handles lithographic production work from a shop not under contract to the ALA; and an employer may not punish an individual worker who refuses to handle non-union work.

Counsel for the union argued that the clauses are designed to prevent an employer from arbitrarily changing the established pattern of operations and to serve the bargaining interests of both sides.

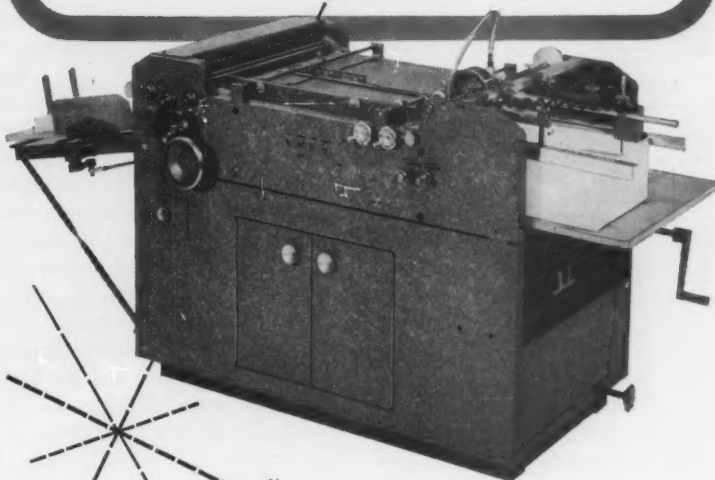
The Board had not at presstime rendered a decision.

Wis. Paper Buys Goss Press

Ozaukee Press, Port Washington, Wis., winner of 20 awards during the past 20 years, has ordered a Goss Suburban web-offset press for delivery early next year. Founded in 1940 by William F. and Marie Jacque Schanen, a husband and wife team, it was the pioneer offset newspaper in Wisconsin.

Published as a tabloid, the paper and its sister publication, the *Weekly Witness*, have a combined circulation of close to 6,000. These two publications average 50 tabloid pages a week.

In 1960, the paper was named the number one picture weekly in the nation by the NEA (National Editorial Association). The offset tabloid was cited for use of full-page pictures on the first page, attractive, yet newsworthy photo layouts throughout the paper, good composition and intelligent use of group shots.



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New Design Strike Gate
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Air Wheel Feed for Pos-
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All Grease-Sealed Anti-
Friction Bearings for
many years of Service.

Variable Speed Control.

The NEW ROSBACK JET '20' Slot Rotary Perforator has many firsts in the field. First fully Automatic Small Air Wheel Suction Feed Perforator.

Production Speed on full size 20" sheet up to 12,000 per hour. Up to 20,000 per hour on smaller sheets. Production speed up to 7,000 on Strike Perforating.

Indicator Light will light when pile reaches proper operating level.

All Operator Controls are within easy reach of Operator on one side of Machine. Machine can be placed against wall to save space.

Rosback

F. P. ROSBACK CO.
Benton Harbor, Michigan

Rose Printing Opens New Plant



The new Rose Printing Co. plant in Tallahassee Fla., one of the largest in the Southeast area.

ROSE Printing Co., of Tallahassee, Fla., last month formally opened its new 60,000 square-foot air-conditioned air-humidified plant in Florida's capital city. The \$500,000 building, located in the city's Industrial Park area, replaces a downtown building which had housed the Rose plant since its founding in 1932.

The new plant, one of the largest in the Southeast, is the result of nearly three years of planning and time-motion traffic studies conducted by staff members in cooperation with several consultants in the fields of printing, business management and architecture.

Construction and occupation of the new building is a part of the company's statewide expansion program, which has included the acquisition of three other printing plants in St. Augustine, Miami and Jacksonville, and several periodicals and magazines.

Lithographic preparation equipment includes three cameras and a new Brown 31-inch Admiral overhead camera completely equipped for color separation work. Each camera has its own dark room and temperature controlled sinks.

In the lithographic press section, there is a 25 by 38" two-color press, a 17½ by 22½", a 25 by 38", three 29" offset presses, and four 10 by 15" presses.

Seven new Baum folding machines, starting at the 39 by 52" size with two 25 by 38", a 22½ by 28½", and three 17½ by 22½" sizes which provide a wide range of folding equipment, have been added.

The four company plants are production integrated and, although they are located in different cities, a modern teletype system keeps the four plants in constant communication with each other.

The four plants are operated on a coordinated program of production, and large, rush printing orders are often divided among the plants, according to individual capacity, providing the final printed product in as fast as one-fourth of normal production time.

In addition, the coordinated plant program provides speedy access to all sections of Florida and adjoining states, making it possible for the company's sales force to blanket the area.

Mallonee Retires from PIW

George P. Mallonee, executive secretary of Printing Industry of Washington, D. C., Inc., has announced his retirement effective Feb. 28.

Mr. Mallonee joined the association staff on May 15, 1942, after 35 years in the industry, mainly in the field of trade composition.

He started to work in 1907 as office boy for the late H. L. Mencken, and shortly thereafter went into the composing room of *The Baltimore Sun*. In 1914 he went to Washington to work as foreman-proofreader for Capitol Publishers.

From 1919 until 1933 he served as treasurer of the Washington Monotype Co. He was connected with Potomac Electrotpe Co. from 1933 to 1936, when he went to New York

as treasurer of the New York Monotype Composition Co., where he stayed until he joined the association staff.

During his years as a member of the association, Mr. Mallonee was active on the association's negotiating committee.

Plan Cal. Employers' Group

Formation of an organization to include graphic arts employers throughout Northern California was discussed Dec. 3 in San Francisco. The Graphic Arts Employers Association, San Francisco, was host to some 70 printers and lithographers. Also participating were the Printing Industry of America and the LPNA, both represented by national officials.

Wayne C. Wade, executive secretary of the GAEA, invited local groups outside of San Francisco to join his association, established two years ago with by-laws intended to encourage area-wide membership. The GAEA has secured a one-year blanket membership in PIA, Wade announced, and all firms which are members of organizations affiliating with the GAEA will automatically become PIA members for that period. They will also have the aid of the GAEA in labor negotiations.

Donald E. Sommer, secretary of the Master Printers Section of the PIA, told the meeting of the services offered by his organization.

Oscar Whitehouse, executive director of the LPNA, spoke on the value of industry associations in this era of business complexities. He urged each graphic arts firm members to select the association in his individual area of interest, join it, and participate actively in it. He also mentioned as future developments of importance to his listeners the anticipated change in labor and tax laws, and new members to be named to the National Labor Relations Board.

WILBER G. HAYWARD, director of purchasing, Forbes Lithograph Mfg. Co., Boston, Mass., has been elected president of the New England Purchasing Agents Association, Inc.

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Crisp and clean as mountain air, bright-white Hammermill Opaque compliments every detail in your illustrations. It contrasts beautifully with either color or black and white. But is it opaque? Just turn the page and see.

HAMMERMILL OPAQUE





YES, HAMMERMILL OPAQUE IS OPAQUE

You can print both sides. This extra opacity often means you can use a lighter weight, with savings in postage and the paper itself. Three easy-to-print finishes: Pearl, English and Vellum. This insert reproduced by offset on Hammermill Opaque, substance 70, Vellum finish. Press speed 3000 per hour, press size 42 x 58, sheet size 39 x 57, deep etch plates.

Hammermill Paper Company, Erie, Pennsylvania

Nu-Art Has Biggest Year With Personalized Cards

NU-ART Engraving Co., Chicago manufacturers of "P G" (personalized greeting) Christmas cards, closed its books on 1960 business with another record-breaking sales volume, the largest in its 47-year history.

Except for the depression years of the 1930's, says C. R. Peckham, executive vice president, that has been the year-after-year story of this unique printing firm ever since Nu-Art began producing Christmas cards and imprinting them with the sender's name in engraved script. Each succeeding year, he says, has been "the largest in our history."

Founded in 1913 as a 100 per cent steel die engraving concern, Nu-Art initially served the Christmas card field by making the steel engravings for the personalized imprints that surged into high favor with card buyers soon after World War I.

It was perhaps natural that, from making the engraved imprint plates, the firm should graduate into production of the cards themselves, with the imprints added as specified by individual buyers. Aggressive sales promotion and service explain the rest of the story, which Mr. Peckham summed up in these words: "Today we are undoubtedly the largest U. S. producer of nothing but P G Christmas cards."

When asked how many presses are operated in the big plant at 5823 N. Ravenswood Ave., Mr. Peckham hesitated. He had not counted for some time, but he thought they would number "more than fifty."

A "large portion" of the output is printed by offset, although letterpress plays a big part in the operations. Most of the 50 presses, small in size and automatically operated, are required for the personalized imprinting service. At times, too, Mr. Peckham said, some of the business has to be farmed out to other Chicago printing firms.

With 1960 business out of the way, preparations for next December's demands got off to an early start this month. Most of the 1961 art work was procured during the past year,

this coming mainly from free-lance artists. Four lines of different quality, named Nu Art de luxe, Etchcraft, Contempora and Nativity art, are offered, with an art director in charge of each different line.

For the next six months the plant will be kept busy preparing the sample books that are released to stationery and book store dealers, and to other outlets. All relations with these dealers are on a wholesale basis, with the imprinting orders coming from them only.

During the summer Nu-Art's offset and other large presses and finishing facilities are busy building up large stocks of cards in readiness for the imprinting step, which starts soon after Labor Day.

The big test of Nu-Art's imprinting service comes in the five or six weeks immediately preceding Dec. 25. In this period last year the daily output ran over 9,000 separate orders per day. The average family, Mr. Peckham stated, sends out an average of 50 Christmas cards. To get these small jobs through the pressroom and out of the shipping department at 9,000 a day is no small feat. Careful organization and scheduling, however, keeps everything under control and moving as smoothly as in any mass production manufacturing plant.

Nu-Art makes nothing but Christmas cards, leaving the anniversary and other everyday types of greeting cards to the rest of the field. "People think of this as a seasonal business and ask us what we do the rest of the year," Mr. Peckham remarked. "Actually, considering the overtime, I tell them we work 13 months a year, and even that isn't time enough. People just don't realize the work involved to satisfy their demands for their personalized Christmas cards."

In 1959, incidentally, over 2,630,000,000, Christmas greeting cards were sent through the mail, which explains the urgency of the post office department's pleas for "early mailing." Postal revenues from this flood were swelled by \$92 million, according to Washington authorities. And,

as every producer of lithographed greeting cards can testify, this business also adds substantially to the industry's year-round income.

Harmon Named Nat. Pub. VP

Wade Harmon, formerly assistant vice president of sales for National



Wade Harmon

Publishing Co., Washington, D. C., has been named vice president of sales by the company.

The company has recently enlarged its production division at 301 N St. N.E. and has installed several new pieces of equipment, including new color presses.

Mr. Harmon joined the company in 1948 and served in several capacities before being named assistant vice president in 1958.

Incorporations

The following firms have recently been granted charters of incorporation: Brookfield Press, Inc., 66 Court St., Brooklyn, N. Y.; Omega Lithographers, Inc., 20 Beechwood Ave., Mount Vernon, N. Y.; Long Island Litho, Inc., 51 Chambers St., New York; Local Imprint, Inc., 550 Fifth Ave., New York; Lameson Lithographers, Inc., 62-13 Catalpa Ave., Ridgewood, N. Y.; Advertising Lithographers Commercial Press, Inc., 43 West 16th St., New York; Bridge Litho Co., Inc., 354 Ocean Ave., Brooklyn, N. Y.; Medallion Printers and Lithographers, 6505 Wilshire Blvd., Los Angeles; Sunset-Forum Press Corp., 8530 Wilshire Blvd., Los Angeles.

HOW TO GET A SALES MESSAGE OFF THE GROUND



This deft and tasteful insert for the Tactair Valve Division of Aircraft Products Company utilizes striking photography and imaginative design to endow the product with visual interest far beyond the "nuts and bolts" category of yesteryear. Credit, too, the choice of West Virginia's Sterling Offset Enamel for faithful reproduction of the whole.

Sterling Offset Enamel reproduces color with admirable fidelity, because of its uniformity, exceptional gloss, and remarkable whiteness. It is also moisture-stabilized which aids you in maintaining register at high press speeds.

Whatever your paper requirements, it will pay you to look into West Virginia's direct sales policy and technical service program. For full information, write West Virginia Pulp and Paper Company, 230 Park Avenue, New York 17, N. Y., or call an office listed below.

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COMMERCIAL PRINTING PAPER SALES**

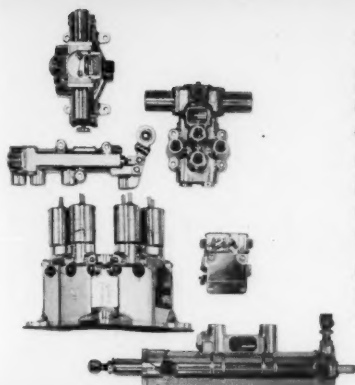
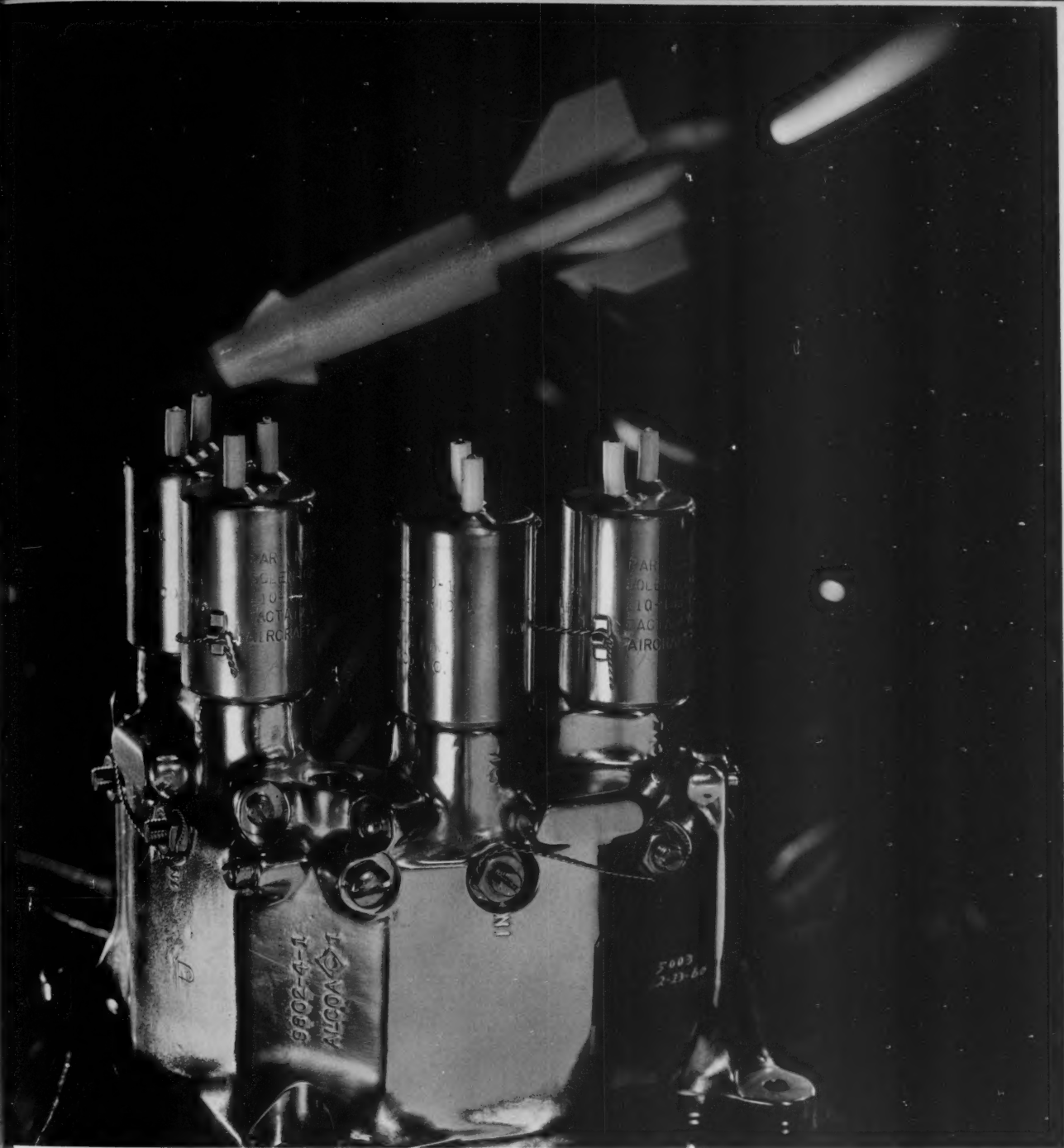
CHICAGO ■ FR 2-7620	NEW YORK ■ MU 6-8400
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DETROIT ■ DI 1-5522	PITTSBURGH ■ CO 1-6660
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tomorrow, if you will tell us what you are looking for today. Tactair Valve Division, Aircraft Products Company, Bridgeport, Pa. BRoadway 5-1000.

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Chicago Apprenticeship Council Reviews Program

REPRESENTATIVES of the Chicago lithographing industry, both union and management, and top personnel in Chicago-area public vocational high schools concerned with education in the graphic arts got together Jan. 6 for a review of the first year of operation of the industry's Joint Apprentice Committee program. Purpose of this project is to recruit school boys best qualified to fit into a career in lithography, either as future apprentices or in non-craft jobs.

The meeting was held at the Chicago Lithographic Institute, which leases a section of the building occupied as headquarters by Local 4, Amalgamated Lithographers of America. In attendance were more than 100 principals and vocational teachers and advisors in metropolitan area public schools, covering both Chicago and suburban communities.

Presiding as chairman of the Joint Apprentice Committee was George K. Gundersen, vice president of Local 4. Assisting him as committee secretary was Archie A. Macready, executive director of the Chicago Lithographers Association. Union members on this joint committee are John J. Benshop, recording secretary of Local 4, and Robert L. Rostad, trade plate shop supervisor. C. L. A. members are Charles D. Porter, Inland-Magill-Weinsheimer Co., and William Reinhardt, Rand McNally & Co.

Representing the Chicago school board at the meeting were Dr. Hobart Sommers, director of the vocational educational department, and Eskell Ericson, director of the graphic arts division.

In a tour of the institute's school quarters, the guests saw the extensive, up-to-date facilities provided by Chicago litho firms to serve their own apprentice training needs in Chicago.

Then, following a dinner, the Joint Apprentice Committee reported on results from the first year's operation of the recruiting program. Also presented were the committee's plans for 1961, with an explanation of the rules governing selection of school boy can-

didates for positions in the industry.

Briefly stated, the committee requests high school printing teachers to recommend from their respective graduating classes in printing two of their best qualified students who have the aptitude, intelligence and interest in printing to become good apprentices in the lithographing craft.

In a subsequent day-long meeting with the Joint Committee, these candidates tour the Lithographic Institute's classrooms and shops to see for themselves what they will go through if accepted by the committee. Here, also, they are told about the industry's position and future growth prospects, together with the terms of apprenticeship, wages, benefits and other details.

Later on, two Joint Committee members, one from the union and one from management, interview each candidate individually to determine just where he will work best in the shop. Included during this interview is a color blindness test. If the boy successfully passes the interview, his name is put into a placement pool to await selection for a specific craft or non-craft job when an opening occurs in Chicago litho plants. A surprising number of boys with potential managerial ability are discovered, it was said.

Reporting at the Jan. 6 meeting, Mr. Gundersen said that, following the first series of interviews last year, 18 February graduates were approved and later placed in jobs. From June graduating classes, names of another 40 boys were placed in the pool, and 34 of these were given jobs during the past summer and fall. The other six, he said, will be placed in the very near future. All placements are subject to the union's strictly enforced apprentice ratio rule.

Through this approach to selection of new recruits to the ranks of the industry's labor force, the committee feels, Chicago lithographers are sure of getting the best possible craftsmen for the future. Since the plan gives boys in the vocational school printing classes something definite to look for-

ward to and work for, it has, from the start, been given the enthusiastic cooperation and support of public school authorities.

Graphic Controls Advances Four

The Graphic Controls Corp., Buffalo, has named a new general manager of a subsidiary division and a director of a new market research division in an executive realignment "to integrate activities and broaden executive experience."

The company also appointed two new operations managers for corporate units and two new department managers.

Bruce C. Sterne was named general manager of the Cooper Box Division of Clarkson Press Inc. He is vice president of marketing for Clarkson Press, a subsidiary, and will retain that position.

Eric L. Hedstrom, Jr. was named director of a new market research division of Graphic Controls. He had been general manager of the Cooper Box Division.

Donald F. Hering was appointed operations manager of Technical Charts Inc., another subsidiary. He had been sales liaison manager of Clarkson Press.

John Knerr has been named operations manager of the Amherst Division of Clarkson Press. Mr. Knerr had been pre-press manager of Graphic Controls.

Wallace Reports Increase

Wallace Press, Inc., Chicago offset firm, reported sales of \$3,144,129 for the first fiscal quarter of 1960, ending Oct. 31. Net earnings were \$172,146, or 43 cents a share. This compared with sales of \$2,854,212 and 37 cents a share for the same 1959 period.

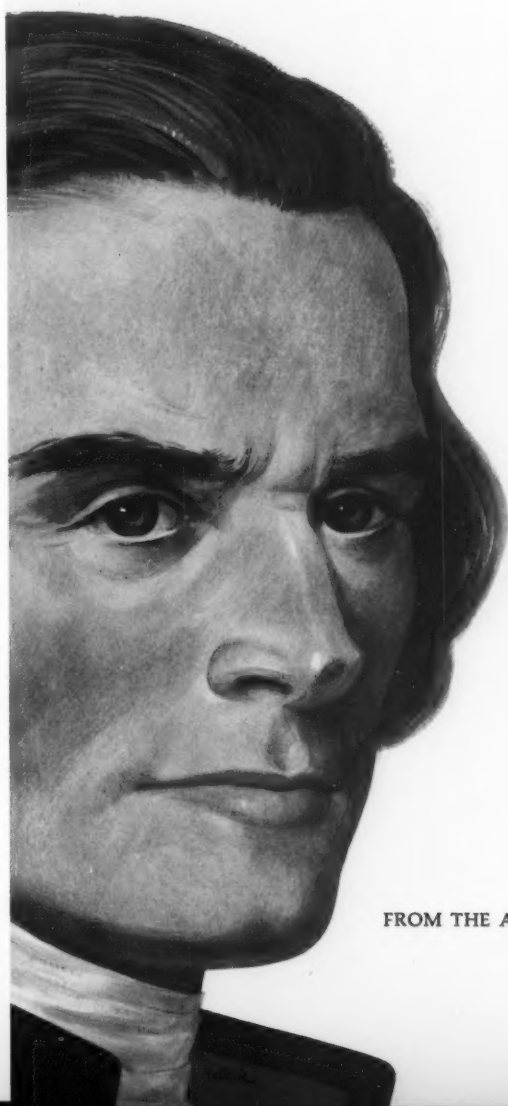
Feature Litho Inks

"Lithographic Inks and Developments in Lithography" will be a featured talk at the first session of the 46th annual meeting of the Technical Association of the Pulp and Paper Industry, Feb. 20 to 23, at the Hotel Commodore in New York. Victor J. Porth, Interchemical Corp., Printing Ink Division, will give the talk.

Equal and exact justice
to all men
of whatever estate
or persuasion,
religious or political...

FIRST INAUGURAL ADDRESS, MARCH 4, 1801

Thomas Jefferson



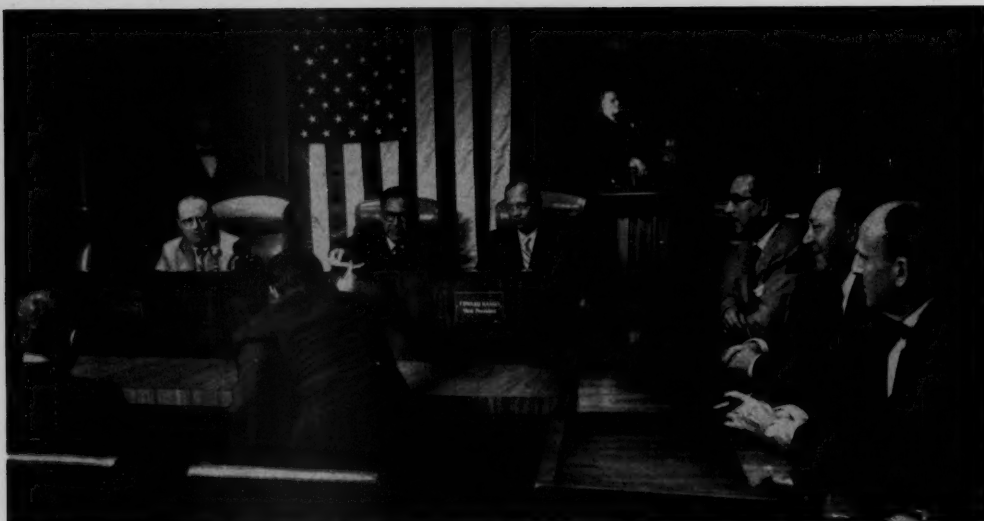
ONE OF A SERIES OF MESSAGES
FROM THE AMALGAMATED LITHOGRAPHERS OF AMERICA

ROCHESTER INSTITUTE OF TECHNOLOGY LIBRARY

FULL MEMBERSHIP MEETING



Jefferson's spirit presides here...



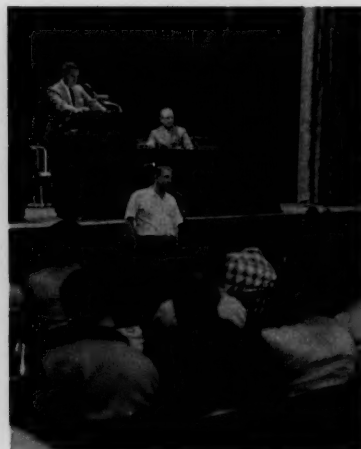
COUNCIL BOARD MEETING

ALA Democracy Reaches The Grass Roots. Above, member's request comes before Local 1 Council Board for consideration. Later, report of Board's recommendation will come before a Full Membership Meeting, left. Dis-

cussion here ranges from individual problems to over-all industry trends. Below right, a Shop Delegate makes a point at a Delegates' Meeting. At a Shop Meeting, below left, members exchange views in relaxed surroundings.



SHOP MEETING



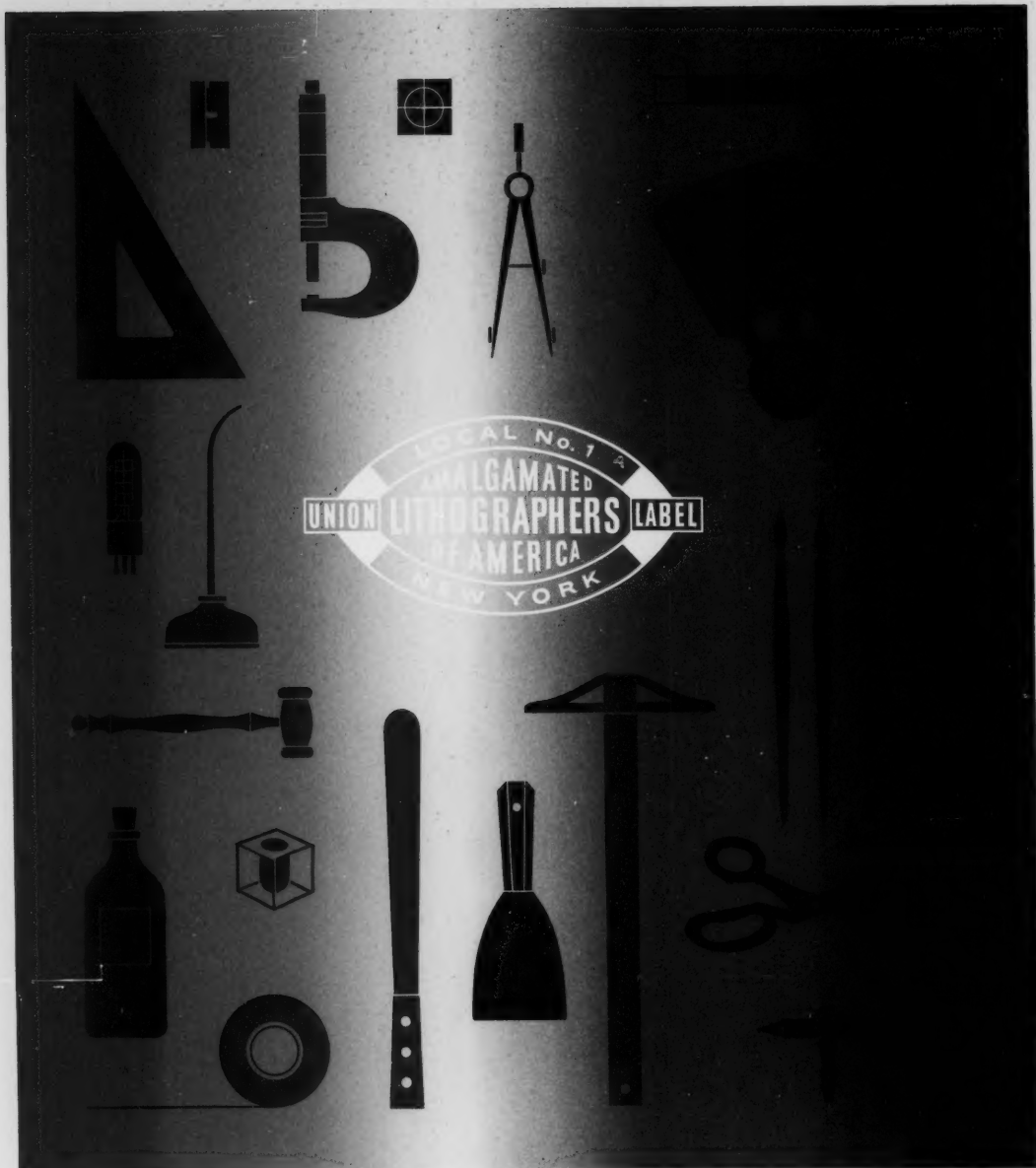
DELEGATES' MEETING

...for here the cardinal rule is *Let each man speak his mind*—the guiding principle wherever members of Local 1, Amalgamated Lithographers of America, meet on union business.

On dozens of separate occasions in a typical month, Local 1 officers meet with members to consider technical and other questions of vital importance to Lithographic Industry progress and the betterment of their way of life...in Full Membership Meetings, Shop Meetings, Delegates' Meetings, Council Board Meetings, Apprentice Meetings.

The Local 1 Council Board, for example, meets weekly to hear rank-and-file members' personal requests and shop problems. Every recommendation of the Council Board must be presented to a Full Membership Meeting for final approval.

The ALA principle that *A Meeting Is A Meeting Of Minds* lies at the very heart of ALA policy—one more important reason why the Lithographic Industry can count on ALA to foster industry-wide progress...to keep Lithography the most dynamic, most rapidly growing method of reproduction in the Graphic Arts.



ALA—Traditional Organ of Lithographic Craftsmen

Since 1882 the Amalgamated Lithographers of America has represented the Trade Union Principle in the Lithographic Industry. ALA is committed to the long-term interests of its members and of the entire industry.

For 78 years, Local 1 has carried forward the ALA tradition of Union Democracy and Industry Progress in metropolitan New York—serving the world's greatest concentration of Communications, Publishing, and Graphic Arts enterprises.



AMALGAMATED LITHOGRAPHERS OF AMERICA

Local 1 • Edward Swayduck, President • 113 University Place, New York 3, N.Y.



Designed by Robert Hallock • Photography: Robert Emmett Smallman • Lithographed at Empire Color Lithographers, Inc. by members of Local 1, ALA.



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BECKETT
HI-WHITE

All illustrations—black and white or full color—look their best on Beckett Hi-White. This extraordinary paper commands extra attention; it gives an impression of dramatic, startling brightness . . . yet it has a roseate undertone which produces the effect of whiteness with warmth.

Beckett Hi-White accentuates white areas (note the radiant whites in the dress, gloves and men's shirts!), but it also imparts extra sharpness to type, creates the illusion of greater depth in colors.

To be sure your printing looks its colorful best, specify Beckett Hi-White. It's available in four book weights and four matching cover weights, also in a wide variety of fancy finishes. This insert is a sample of our new companion cover stock, Beckett Hi-White Cover.

Ask your nearby Beckett merchant for complete sample book.



THE BECKETT PAPER COMPANY

Makers of Good Paper
in Hamilton, Ohio, Since 1848

This is BECKETT HI-WHITE COVER, Smooth Vellum Finish, 50 lb.

Color illustration courtesy Simplicity Pattern Co., Inc.

Calendar Features Old Wood Cuts

THE 1961 calendar of the Franklin Printing Co., and Williams & Marcus Co., Primos, Pa., printed by the lithographic process, is a unique graphic arts achievement.

The calendar, sent to the company's friends throughout the country and lithographed in its own shop, features reproductions of original wood engravings depicting Civil War scenes.

John S. Williams, president of the company, said the calendar was issued in commemoration of the 100th Anniversary of the start of the Civil War.

The 12 wood cuts used are from a collection which the company discovered in 1959 following the purchase of the old George S. Ferguson Co., book printers, Philadelphia. A total of 150 of these valuable wood cuts was discovered in the basement of the Ferguson plant. Each of the 12 illustrations in the calendar, printed in black and antique tan, depicts a Civil War scene.

In order to preserve the original

cuts they were first Brighttyped by Alfred J. Jordan, Inc., Philadelphia typographers, and then converted to lithographic plates. Printing the letterpress cuts direct might have damaged the old engravings and the company wants to preserve them as what it believes is one of the most important graphic arts discoveries of the Century.

The calendar was designed by the company's creative department and produced by its lithographic section. Another feature is the use of old type faces, many of them also wood, from the collection of Dr. Roy H. Abrams, a professor at the University of Pennsylvania. Dr. Abrams, whose hobby is typography, has over 1,500 type faces in his collection.

Mr. Williams told ML that the Franklin company will probably use other scenes taken from the wood cuts in its 1962 calendar. The wood cuts are available for exhibition purposes among graphic arts groups, he said.

Johnston Strathmore Pres.

Henry D. Johnston, vice-president since 1957 and a member of the board of directors since 1951, has been elected president of the Strathmore Paper Co., West Springfield, Mass.

Mr. Johnston, who has been with the company for 33 years, succeeds F. Nelson Bridgham, who has been serving as president and chairman of the board. Mr. Bridgham, veteran of a half century, will continue as chairman of the board.

Also announced was the retirement of Roy F. Arnold, manager of product development and a member of the board of directors. Mr. Arnold has been with the company since 1913.

Elected to the board of directors were Robert B. Clark, Jr., manager of printing paper sales, and Peter G. Volanakis, manager of technical paper sales.

Bemis P. Wood was promoted from general superintendent to vice presi-

dent in charge of production. He succeeds Laurence W. Shattuck, who has retired as vice president in charge of production and a member of the board of directors.

A third director to retire is Harold A. Bolles, who had retired from the company as superintendent of the No. 2 mill earlier this year.

Forms Printers Meet in KC

Forty-two of the top business forms printers in Missouri, Kansas, Nebraska and Iowa met in Kansas City in December for a regional workshop presented by the Rotary Business Forms Section of PIA. William R. Brown, Charles E. Brown Printing Co., was chairman of the workshop.

Arthur Johnson, executive director of the Rotary Business Forms Section of PIA, and Robert Anderson, management engineer with the Graphic Arts Association of Wisconsin, led the workshop. The workshop was slanted toward "Keys to Increased Productivity of Forms."

Subjects discussed were: Top Management's Responsibility for Increased Production, How to Measure Your Output, Using RBF Detailed Production Standards for Greater Control, and How to Improve Productivity and Attain Production Standards.

Interchemical Advances Ault

Bromwell Ault has been elected vice chairman of the board of Interchemical Corp., New York, and William N. Davies and Kenneth B. Lane have been elected vice presidents.

Mr. Ault, a member of the board since its formation, has held a series of executive posts including head of IPI, its Printing Ink Division. Since 1944, he has been a vice president of the company.

Mr. Davies, who will be vice president-sales, has been general manager of company's Color & Chemicals Division. Before that he was with the Printing Ink Division as division vice president.

Nashua-3M Settle Suit

A patent suit brought by Nashua Corp. of Nashua, N. H., on its Davis Patent No. 2, 793, 966 against Minnesota Mining & Manufacturing Co. of St. Paul, Minnesota, has been settled out of court.

In connection with this settlement, Minnesota Mining has taken a license under the patent from Nashua, under which royalties are payable on its flat-lying gummed label paper known in the trade as Prone. Nashua's flat-lying gummed label paper manufactured and sold under the patent is known as Davac.

Allied Advances Two

Henry Peeters has been appointed to the position of director of production scheduling, and Guy Mahoney has been named to replace him as assistant director of production scheduling, by Allied Paper Corp., Chicago.

Mr. Peeters, an employee of Allied since 1947, will direct production scheduling for all the mill divisions in Kalamazoo, Mich.

2-minute quiz on Warren's negative-working FotoPlate

Check yourself on these important points

Q. *Just what is FotoPlate?*



A. A negative-working, presensitized plate for high-quality lithography — made of plastics, paper and laminants, caliper 0.012.

Q. *How can it save you money?*



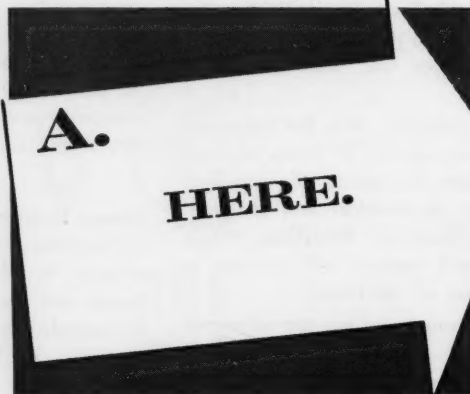
A. Low initial cost; low chemical and processing costs; fast, easy preparation; scratch resistant — saves time and materials; easy press run.

Q. *What kind of results do you get?*



A. Highest-quality reproduction of type, line and halftones, for runs of 5,000 impressions.

Q. *Where can you buy FotoPlates?*



A.

HERE.



Send for free 12-page booklet describing
Warren's FotoPlate. Write to: S. D. Warren Co.,
Dept. A, 89 Broad St., Boston 1, Mass.

FotoPlate

Here's where you can buy



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BUFFALO, N. Y. Buffalo Graphic Arts Supply, Inc.
Marks & Fuller, Inc.
CHARLOTTE, N. C. George R. Keller, Inc.
CHICAGO, ILL. Bridgeport Engravers Supply Co., Inc.
Chicago Litho Products Company
Harold M. Pitman Company
K. Schlienger Company
The Simplimat Corporation
CINCINNATI, OHIO G. C. Dom Supply Company
McKinley Litho Supply Co., Inc.
CLEVELAND, OHIO Bridgeport Engravers Supply Co., Inc.
Harold M. Pitman Company
Cleveland Litho Graining & Supply Co.
COLUMBUS, OHIO Salem Graphic Supply Co.
DALLAS, TEXAS Low Wenzel and Co. of North Texas
Jones-Texas Graphic Products Co.
Litho Offset Supply Co.
DAYTON, OHIO Salem Camera Company
DENVER, COLO. Jones Graphic Products of Colorado, Inc.
Low Wenzel and Co. of Colorado
DES MOINES, IOWA Western Newspaper Union
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HOUSTON, TEXAS Low Wenzel and Co. of South Texas
L. H. Kelley Company
INDIANAPOLIS, IND. Modern Photo Offset Supply, Inc.
KANSAS CITY, MO. Wenzel Equipment Company
Western Newspaper Union
LOS ANGELES, CALIF. Smart Supply Co., Inc.
Low Wenzel and Co. of Southern California
LOUISVILLE, KY. Reliable Lithographic & Offset Supply Co.
MADISON, WIS. Widen Offset Supply Company
MIDLAND, TEXAS The Southwestern Company
MILWAUKEE, WIS. Reimers Photo Materials Co.
MINNEAPOLIS, MINN. T. K. Gray, Inc.
Litho Supply Depot, Inc.
MORRIS, N. Y. Associated Graining Company
NASHVILLE, TENN. Southeastern Printing Ink, Inc.
NEWARK, N. J. Globe Printers Supply Co.
NEW ORLEANS, LA. Printers Supply Mart
NEW YORK, N. Y. Bridgeport Engravers Supply Co., Inc.
Chemco Photoproducts Co., Inc.
Harold M. Pitman Company
Roll-O-Graphic Corporation
OKLAHOMA CITY, OKLA. Western Newspaper Union
PHILADELPHIA, PA. Penn Dell and Company
Phillips & Jacobs, Inc.
PHOENIX, ARIZ. Jones Graphic Products of Arizona
PITTSBURGH, PA. Phillips & Jacobs, Inc.
PORTLAND, ME. Northeastern Composition Co.
ROCHESTER, N. Y. Marks & Fuller, Inc.
ST. LOUIS, MO. Rissmann Graphic Arts Supply Co.
Western Litho Plate & Supply Co.
SAN ANTONIO, TEXAS Texas Type Foundry
SAN FRANCISCO, CALIF. Low Wenzel and Company
SECAUCUS, N. J. Harold M. Pitman Company
SYRACUSE, N. Y. Marks & Fuller, Inc.
TOLEDO, OHIO Toledo Lithograin and Plate Co.
UTICA, N. Y. Buffalo Graphic Arts Supply, Inc.
WASHINGTON, D. C. George R. Keller, Inc.
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Obituaries

Toby Morgan, of GAM, Dies

Members of the lithographic industry were saddened to learn of the



William O. "Toby" Morgan

death of William O. "Toby" Morgan, offset editor of *Graphic Arts Monthly*, in late December.

Mr. Morgan died Dec. 27, from hepatitis, after a short stay in a Chicago hospital. Before Christmas his condition had been critical but doctors said he had rallied for a few days before taking another turn for the worse.

"Toby" was one of the best known and widest-traveled men in the industry. He covered graphic arts meetings for GAM in all parts of the country. In his travels he paved the way for admission of perhaps a dozen new clubs into the National Association of Litho Clubs. He had served as Club Coordinator for NALC in recent years, following his terms as president of that organization.

Mr. Morgan was a frequent speaker at litho club meetings and was one of the staunchest advocates of the NALC movement. Before joining GAM, he had served as the first director of the Chicago Lithographic Institute.

In October, he had been honored by the National Association of Photo-Lithographers with an engrossed resolution for his contributions to the field of lithography. The presentation was made at the annual convention of the association in Chicago.

Alexander L. Riley

Alexander L. Riley, 68, former sales manager and treasurer of the Chas. E. Brown Printing Co., Kansas City, died last month at his home following a heart attack.

Survivors include his wife, Mrs. Louella Riley, a daughter and stepson.

Well known in printing circles, Mr. Riley was also a city, state and southwest bowling champion.

Albert J. Edgell, 76

Albert J. Edgell, 76, vice president of Empire Color Lithographers, New York, died in December at the Lenox Hill Hospital in New York. He was well known for his work in store window and interior displays.

J&D Elects Shields Pres.

James W. Shields has been elected president of Judd and Detweiler, Inc., Washington's largest commercial printing plant, succeeding George E. Judd, who was elected chairman of the board of directors. Mr. Judd had served as president since 1928. Mr. Shields has been executive vice president for the past six years.

Former assistant vice presidents Willard E. Brown and Henry J. Laupp have been elected vice presidents for sales and production, respectively. Former chief accountant William B. Cochrane has been named treasurer.

John H. Davis, Sr., has resigned as chairman of the board, but will continue as vice president and secretary of the firm.

Ask for Tax Refund

Baker Jones Hausauer, Inc., Buffalo printer, has moved in Federal Court for the refund of more than \$33,000 paid in income taxes for 1953.

The firm filed a suit against the government alleging that an error in reporting a tax-free partial liquidation as a taxable sale resulted in overpayment to the government of \$15,704.08. It said another error in computing resulted in an overpayment of \$17,545.56.

PII Predicts Increase Over 1960

PPRINTING Industry of Illinois, in a year-end survey of business conditions in Illinois and Chicago, forecasts for 1961 an increase of 6 percent to 8 percent in business volume for printers there.

"It is difficult to anticipate the net profit percentage printers can expect in 1961," said the PII report, "but it is our belief that extremely virile local competition, in addition to strong competition from out of state, will hold our net profit percentage to around that of 1958. The Illinois-Chicago profit percentage is very close but still behind the national average."

The 6 to 8 percent business increase, the association statement adds, may be even greater because of stabilization of the area's labor market and the many new facilities, plants and equipment added during 1960.

During 1959 and 1960 printing sales in Chicago increased 4 to 5 percent above 1958 but were about

4 percent below the 1956 figures, says the survey report, released by James X. Ryan, association manager. A number of plants increased their volume from 100 to 200 percent, beyond 1958 and 1957, while others, including direct mail and publication printers, experienced reduced volume. In areas outside metropolitan Chicago, sales volume approximated the 1958-59 volume and was probably not more than 4 percent greater than 1957-58 volume.

"The confidence of Illinois printers in their future," says the statement, "is encouraging and stimulating. Many of our association's members have expanded their plants and many more are making additions and major improvements. A limited number of letterpress printers have added lithographic equipment. There is considerable expansion of lithographic plants, particularly in larger presses, including webs.

"We believe the problems of the

industry are substantially those best met through healthy competitive standards and are convinced that printers, nationally, must in view of competition, install and maintain full and accurate accounting and cost systems."

Grant Retires from GPO

John L. Grant, assistant production manager, is retiring from the Government Printing Office under the optional provisions of the Retirement Act, after 43 years of service.

Mr. Grant will be succeeded by Frederick W. Baumann, Jr., who has been serving for some time as assistant to the production manager and security officer.

Waters Buys Sunset

George Waters of San Francisco has purchased full ownership of Sunset Short Run Color Co., specialists in the Eastman three-color process, and will henceforth operate it as George Waters Color Productions.

Color, anyone? *Successful color specification calls for top-flight equipment. Without it you're prone to make errors. With it you score every time. In the field of color specification there is no better equipment than the three volumes described below.*

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Grand Book of 3-Color Blending An inexhaustible treasure house for three-color printing. Over 10,000 three-color combinations in letterpress and offset. Derived from 51 basic colors. Illustrated by design examples showing effects of overprinting, screening and various reproduction techniques. Now you can assess, reproduce and check on any required shade of color. \$45. Printed in Europe.

Four-Color Process Guide Takes the guesswork out of four-color process reproduction. Every possible two-, three- and four-color combination available from the process inks, shown in print—5,632 different color patches, 224 pages—each 11 x 14". Arranged in logical sequence. This monumental work has been acclaimed by the foremost graphic arts authorities as one of the most important contributions in the Graphic Arts in the past 50 years. \$110. Created by Collier Engraving.

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FPBA To Expand Statistics

The Folding Paper Box Association of America has announced plans for expanding in 1961 its statistical services to provide figures for use in preparation of sales analyses by participating member companies.

Already recognized as a model for association activities of this nature, the FPBAA statistical program has consisted of four major features: (1) revision of industry data back to 1947, to make available accurate statistics fully comparable over the years; (2) translation of industry figures into meaningful reports of trends and developments; (3) use of audio and visual techniques to present timely economic reports forcefully; and (4) adoption of collective procedures that give reporting companies useful information for their own individual interpretation.

In general charge of the statistical program is S. Edward Iciek, who recently was awarded the degree of Master of Business Administration by the University of Chicago.

Joining the Folding Box Association in 1956, he completely reorganized the statistical service and his timely reports about the folding carton industry have been accepted as an economic barometer of business conditions among consumers of non-durable goods.

QC Seminar Announced

The 11th annual program of Quality Control for the Graphic Industries will be held at Rochester Institute of Technology in June. Specific dates for the seminar will be announced shortly.

The program, stressing the measurement and control of printing material, is specially designed for buyers and producers, management and sales executives from the fields of printing, lithography, paper converting, folding cartons, paper printing inks and publishing firms.

Hofferth Elected in Cincinnati

Fred P. Hofferth, vice president of the American Book Co., was elected president of the Graphic Arts Association of Cincinnati, Inc., at an annual dinner meeting on Dec. 6 in the Cincinnati Club. He succeeds William H. Bedinghaus, Jr., of Bedinghaus Business Forms Co.

Other new officers are: vice president, Arthur T. Tiemeyer, Mail-Way Advertising Co.; treasurer, Frank H. Kreger, Rockwood Press, Inc., and directors for three-year terms: Wilbert Rosenthal, S. Rosenthal & Co., Inc.; Raymond Ostrander, United States Playing Card Co., and Arthur

Young of Martin Young, Inc. John D. Rockaway continues as managing director, and Donald J. Mills as his assistant.

Photo-Lith Moves to New Plant

Photo-Lith Service, Inc., formerly of 612 9th St., Wilmington, has moved to its own newly built plant at 1010 East 28th St. The new building, with 2,200 square feet of space, consists of two darkrooms, a plate stripping room and offices.

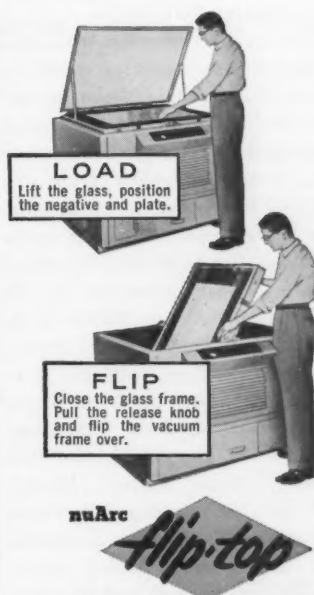
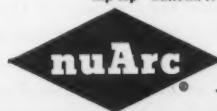


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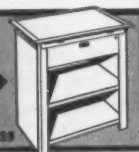
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Graphic Controls Buys Los Angeles Firm

THE Graphic Controls Corp. of Buffalo, N. Y., 3½-year-old graphic arts holding company, is acquiring another company in the field.

Max B. E. Clarkson, president, told some 200 stockholders at their annual meeting in the Statler Hilton in December that the company has contracted to acquire the American Recording Chart Co. of Los Angeles. Mr. Clarkson said the cash transaction was to be completed before the end of 1960.

This represents Graphic Controls' first manufacturing operation west of the Mississippi. The 25-year-old California company is the only producer of recording charts in the West, Mr. Clarkson noted.

The company now has nine subsidiaries or divisions employing about 500 persons, including about 370 in the Buffalo operations. American Recording Chart, now closely held, will be operated as a wholly owned subsidiary of Graphic Controls.

Mr. Clarkson told stockholders that consolidated sales of Graphic Controls in the fiscal year which ended Sept. 30 rose to a record \$9,362,000, up about 25% from \$7,522,000 in the previous fiscal year.

After-tax earnings, however, declined to \$448,249, equal to \$1.01 a share, from \$548,600, or \$1.13 a share on a larger number of shares, a year earlier.

Mr. Clarkson attributed the earnings decline to stiffer competition and increased expenses involved in a larger sales force.

Mr. Clarkson said that Graphic Controls "looks forward to a good year in 1961" with increased sales in all product lines—recording charts, business forms for automation and folding boxes.

The company added about \$500,000 worth of new equipment this year, a substantial amount of it for the Buffalo operations, Mr. Clarkson added. He noted that the capital investment program will continue in 1961 "on a fairly substantial scale."

Mr. Clarkson also said that Graphic Controls has ordered a large IBM

1401 computer for its data-processing department in the headquarters facilities in Buffalo. He said that this is evidence that "we not only print for automation but we believe in it."

Mr. Clarkson reported the company now has about 335 stockholders, about 75% of whom are employees or members of their families. The company "has no immediate plans" for any public stock issue, he added.

Pick Folding Box Judges

The Folding Paper Box Association of America announced last month the names of 17 printing, packaging and merchandising experts who will select winners of the customary 100 awards given in the 1961 folding carton competition. Announcement of the winners and a display of all entries in the contest will be made at the organization's annual convention at the Drake Hotel, Chicago, March 20-22.

Judges for the "Technical Superiority of Printing" category are: Donald Macaulay, president, Paper Quality Control, Inc., Chappaqua, N. Y.; W. O. Morgan, Graphic Arts Monthly, Chicago; Warren L. Rhodes, head, graphic arts dept., Rochester Institute of Technology, Rochester, N. Y., and Robert E. Rossell, managing director, Research and Engineering Council of the Graphic Arts, Washington, D. C. Other categories to be judged by specialists in their respective fields include: "Superiority of Construction"; "Best Example of Potential New Volume Use," and "General Merchandising Superiority."

Forbes Elects Balcom

Raymond D. Balcom has been elected president of the Forbes Lithograph Mfg. Co., Chelsea and Boston, Mass. He joined the company in 1957 and has served as vice president in charge of manufacturing and, most recently, as executive vice president.

Prior to joining the company, Mr. Balcom had extensive experience in general and financial management. He has practiced as a Certified Public Accountant and as an attorney. He holds degrees from Clark Uni-

versity (A.B.), University of Michigan (M.B.A.) and George Washington University (LL.B.).

Mr. Balcom is a resident of Needham, Mass., and is a member of the American, Massachusetts, and Boston Bar Associations, American Institute of Certified Public Accountants, Controllers of America, and is a director of the Gravure Technical Association.

Win K-C Letterhead Awards

Eight printers have won an Award of Merit from the Neenah Paper Division of Kimberly-Clark Corporation for the printing of outstanding letterheads.

They are the Ray Kyle Printing and Lithography Co., Dallas, Tex.; Harvey Hanson, Oakland, Calif.; Burdge, Inc., Los Angeles; Esquire Press, Pittsburgh, Pa.; La Crosse Printing Co., La Crosse, Wis.; Ernest N. Miller Engraving Co., Chicago; Frederic M. Pannebaker, Lithographer, Denver, Colo., and Frank Mayer & Associates, Inc., Milwaukee.

The award, a certificate mounted on a wall plaque, is given to printers for outstanding letterheads on KC cotton fiber paper.

Nashua, Gibson Join Forces

Gibson Greeting Cards, Inc., Cincinnati, and Nashua Corp., Nashua, N. H., have announced an agreement to form a joint enterprise to be known as G N Papers, Inc. The new corporation, to be equally owned by Gibson and Nashua, will acquire the assets of Nashua Corp.'s Pakay Division, which is engaged in the manufacture and sale of party paper products, such as printed napkins, tablecovers, cups, plates, etc.

G N Papers, Inc., will continue to manufacture party paper products. The new company will have an exclusive sales arrangement with Gibson Greeting Cards, whereby the latter's sales organization will market G N Papers, Inc.'s total product line in conjunction with Gibson's established greeting card lines.

C. Russell Shaw, a former divisional manufacturing manager of Nashua, is to be appointed general manager of G N Papers, Inc.

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Will Review Labor Trends

The Jan. 26 meeting of the Metropolitan Lithographers Assn., at the Hotel Roosevelt in New York will feature a briefing on the labor situation in the litho industry. Three officials of the Amalgamated Lithographers of America will speak on "Policies of the Amalgamated—Present and Future". The speakers will be: Kenneth J. Brown, International president; Benjamin M. Robinson, general counsel; and Edward Swayduck, president of Local 1.

It is anticipated that these three speakers through their statements of union policy will help clarify the future labor situation where lithographic techniques are employed. The expansion of the use of the process by other industries, and the use of its photographic techniques in making the new one-piece typographic plate, has developed jurisdictional problems for the unions, and a trend among them to affiliate.

The MLA, an employer group, negotiates the group contract with the A.L.A. for the New York metropolitan area.

Veritone Opens N. Y. Office

Raymond A. Franzino has joined the Robert O. Law Co., Chicago, and its lithographic division, the Veritone Co., as Eastern representative in charge of sales.

He had been associated with the *Parents' Magazine* for eleven years as assistant production manager, before signing to open the eastern branch office of Veritone at 52 Vanderbilt Ave., New York.

3M, Warner Postpone Merger

Minnesota Mining and Mfg. Co. and Warner-Lambert Pharmaceutical Co. have suspended action aimed at combining the two companies. They have requested the Department of Justice to investigate the proposed combination before the firms take further action.

GC Borrowing Over Million

The Graphic Controls Corp., Buffalo, N. Y., is borrowing \$1,250,000 from the New York Life Insurance Co. Part of the proceeds will be used

to finance the company's continuing expansion.

Graphic Controls is a holding company with nine subsidiary divisions, four of them in Buffalo. It has recently been negotiating the acquisition of another company, American Recording Chart of Los Angeles.

Under the new financing arrangement, New York Life purchases \$1,250,000 of Graphic Control notes, due in 1972. The proceeds will be used to retire outstanding debts and expand printing facilities.

POPPI Elects Two Directors

John D. O'Hara and Louis C. Krueger have been elected to the board of directors of the Point-of-Purchase Advertising Institute to complete the unexpired terms of Harold D. Schwartz, and Robert J. Leander.

Mr. O'Hara, director of sales of Plasti-Line, Inc., Knoxville, Tenn., manufacturers of plastic illuminated signs and Mr. Krueger, president, Advertising Metal Display Co., were elected in November.

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Barrons Lauds Printing Industry

A highly favorable review of the printing industry's progress and prospects appeared as a three-page feature article in the November 28 issue of *Barron's*, national business and financial weekly with a circulation of over 100,000.

Noting that printing is one of the world's oldest and largest businesses, *Barron's* reported that printing has achieved "new lustre" and said, "The 'sixties have all the earmarks of a golden era for the graphic arts industry." This healthy state of affairs is ascribed to "expanding markets and better equipment."

A key passage in the article points out that, "Backed by advances in technology, steady mounting advertising outlays by industry, and an ever-growing demand for reading matter, the companies responsible for dissemination of the printed word these days are writing a fascinating story of their own."

Reprint copies are available from the public relations department, Harris-Intertype Corp., 55 Public Square, Cleveland 13, O.

Color Job Estimating Kit

The do-it-yourself craze has come to the color printing field with the publication of a self-service estimating kit that reportedly makes it possible for any businessman to predetermine the cost of a full-color printing job.

Published by Colorcrafters, the kit was devised to answer two basic questions: "How can I present my products in full color?" and "How much will it cost?"

The kit contains separate sections on photography, color separations and printing, each with a price list. It also illustrates a number of suggested layouts and presents actual samples of catalogs, brochures, mailing pieces, and other full color promotional pieces. An outline guides the novice through six components to the final cost figure.

A free copy of the kit is available by writing on company letterhead to

Max Bishop, Colorcrafters, 4750 Chestnut St., Philadelphia 39.

Commercial Letters Moves Plant

The Commercial Letter, Inc., has purchased the three story building at 1335-37 Delmar Blvd., St. Louis, and moved from its former address at 1209 Washington.

The new building was altered to fit the particular needs of the offset direct mail company. The new building has 22,000 square feet of space.

Von Hoffman Advances Ginter

Earl A. Ginter has been named a vice president of Von Hoffman Press, Inc., St. Louis, and of the company's Jefferson City offset-book manufacturing plant.

Mr. Ginter was also appointed general sales manager of the company recently. He has been with Von Hoffmann since 1946.

Equipment Leasing On Rise

Long-term leasing of production and office equipment by the printing industry spurted ahead during 1960. Value of equipment leased during the year was \$8.9 million, a gain of 53 percent over 1959.

Robert Sheridan, president of Nationwide Leasing Company, Chicago, said in a year-end statement that equipment leased by all industry last year totaled \$530 million. This was the first time leasing topped the half-billion mark. He predicted that leasing volume would reach \$1 billion a year by 1962.

Mr. Sheridan said there are four major reasons for the rapid growth of equipment leasing in the printing industry: increased popularity of sale-leaseback transactions involving existing plant, more equipment manufacturers have introduced lease plans for their products, money remains tight, as evidenced by a 13 per cent decline in corporate liquidity in the industry during the year, and greater use of the open-end "master lease" under which companies can expand their leasing steadily, as the need for additional equipment arises.

ATF Holding Open House

American Type Founders, Elizabeth, New Jersey, has announced that three of its branches will be holding "open house" for the public in connection with Printing Week.

The Boston, Chicago and Philadelphia offices will be open from 10:00 a.m. to 9:00 p.m. on Jan. 17-18, 18-19, and 19-20, respectively. On exhibit at each of the three branches will be the newly-introduced Gerson Multiplater step-and-repeat machine and the new Typesetter. Demonstrations of 3M plates and chemicals will also be given. Both Chicago and Philadelphia will exhibit the new Chief 226 offset press, and the new 61" Senator cutter.

Forbes Elects Lanigan V.P.

Vincent C. Lanigan has been elected vice president and appointed to the newly created position of assistant to the general sales manager, of the Forbes Lithograph Mfg. Co., Boston and Chelsea, Mass.

Mr. Lanigan has had extensive experience in gravure packaging and in his new position, he will continue his efforts in the gravure packaging sales field.

Since joining the company's gravure division in 1954, he has served as gravure sales assistant to the general sales manager, gravure sales manager, and packaging sales manager. He formerly was associated with Reynolds Metals Co.

Publish Apprenticeship Booklet

Local 4, Amalgamated Lithographers of America, and the Chicago Lithographers Association, Inc., have published a new booklet entitled, "Joint Apprentice Committee Working For You."

The booklet states, "Both management and the union have long recognized the need for a systematic method of selecting and introducing new people into our industry that would guarantee the best possible craftsmen for the litho industry. It was for this reason that the Joint Committee representing union and management was created." It describes in detail the program developed by the industry to recruit eligible young men.

The committee is asking the industry to review future craft apprentice needs and trainee needs for non-craft jobs in lithographic plants.

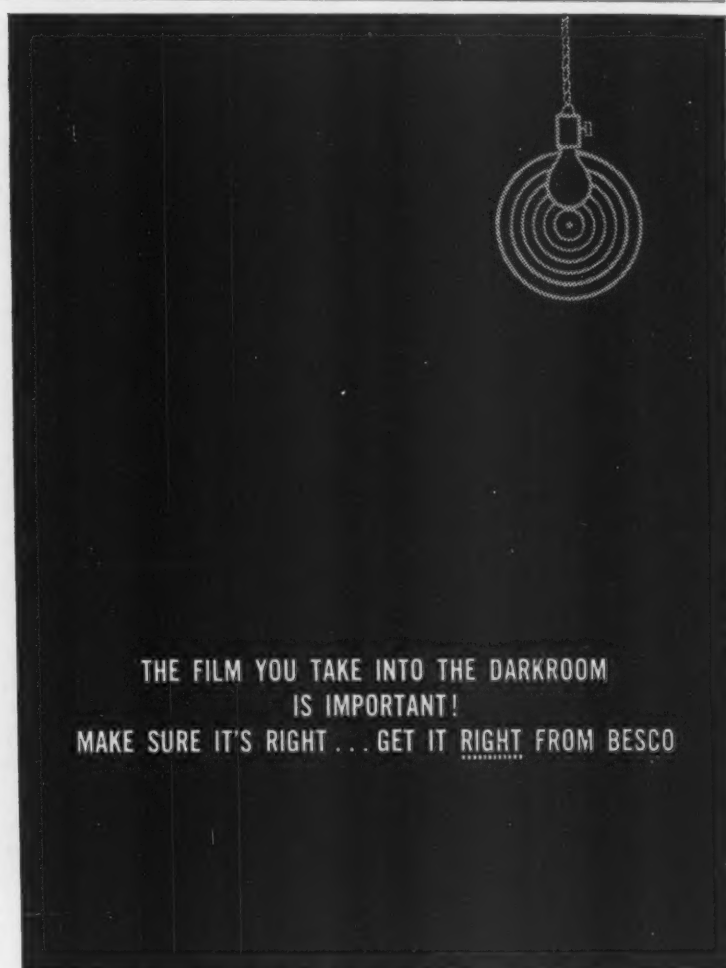
Information and a copy of the booklet are available from George Gundersen, chairman, Local 4, 204 South Ashland Blvd., Chicago 7.

Bank Displays English Cards

A display of historic Christmas greeting cards, some of which are 100 years old and none less than 60, was

on exhibition at the main office of The Dime Savings Bank of Brooklyn, through the recent Christmas holiday season.

Described as "A Gallery of Christmas Art," many of the cards are the work of members of the Royal Academy of Art and lithographers and engravers in England, where the Christmas greeting card idea originated in 1843. They were on loan to the bank from the Hallmark Historical Collection of more than 25,000 specimens of greeting cards.



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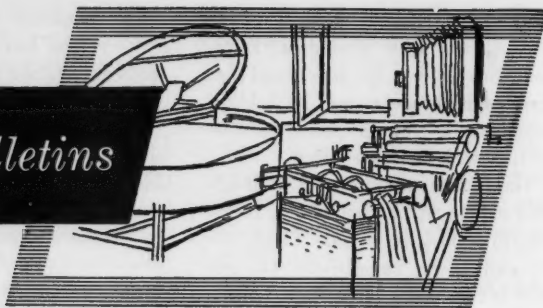
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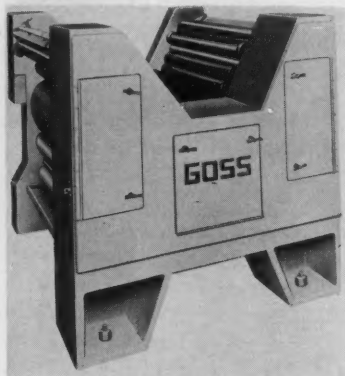
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Equipment, Supplies, Bulletins



Goss Introduces Larger Web-Offset Press

THE GOSS Company, a division of Miehle-Goss-Dexter, Inc., has introduced a new semi-cylindrical style, web-offset press, to meet the need of those daily newspapers which



One Unit of New Goss Press

require more capacity in an offset press. Known as the Goss Urbanite, the press will have a maximum capacity of 48 standard-size pages or 96 tabloid pages. Called the Urbanite, it will print blanket to blanket on a vertically fed web, and will have facilities for spot or ROP color without the loss of page capacity.

The press will be built to handle the requirements of those newspapers in the medium circulation range that prefer the offset process. Many of the proven features of the Goss Suburban press will be incorporated.

Each unit will print a maximum of eight standard pages, two around and two across on both sides of the vertically fed web. Units will be floor mounted and will be equipped with automatic tension lock-up for metal plates, continuous ink feed system with the new Micrometric ink feed roller, and automatic impression, ink

and dampener form roller throw-offs.

The unit will handle a paper roll up to 40 inches in diameter and web widths varying from 29 to 36 inches. Standard page cutoff is 22¾ inches. The press is fully enclosed in oil tight housing with a circulating oil system. The folder can deliver standard broad sheet or tabloid products, and combination half and quarter page folders are also available.

Further information may be obtained from the company at 5601 West 31st St., Chicago 50.

Bulletin on Multiplater

American Type Founders has released a new eight-page booklet describing the ATF-Gerson Multiplater step-and-repeat machine. The booklet's simple format presents the equipment's uses, features, operation and specifications.

The machine, designed for multiple-image single and multi-color work, as well as for combination layouts, reportedly provides swift, precisely registered results for plate exposure up to 36 x 48".

Further information is available from Dept. 90-P of the company at 200 Elmore Ave., Elizabeth, N. J.

Ansco Advances Harsh

Harold C. Harsh has been appointed general manager of the Ansco division of General Aniline & Film Corp., New York, it was announced by Dr. Leopold F. Eckler, who has been named vice president of the company and group executive for the Ansco and Ozalid divisions.

Mr. Harsh replaces Dr. Eckler as general manager of Ansco. Dr. Eck-

ler was appointed group executive of the divisions in the company's recent reorganization program. L. Byron Cherry is general manager of the Ozalid division.

Mr. Harsh, who joined Ansco in 1934 as a chemist, was manager of operations for the division. Since becoming associated with the division he has served as a department head in its paper plant, manager of the chemical development laboratory, manager of quality control, production manager, and was named manager of operations in 1956.

Expand Bible Paper Production

High grade Bible papers are now being manufactured at the Neenah Paper division of Kimberly-Clark Corp., Neenah, Wis.

The Neenah mill is producing two grades of fine thin papers, Microtext Niagara-N for offset, and Microtext New England Bible-N for letterpress. Both grades are part of the line of thin papers manufactured by the Peter J. Schweitzer division.

The papers are now being manufactured at the Neenah Paper division in basis weights of 30 and 35 pounds, in sizes of 25 x 38" and 35 x 45" in long grain, and 38 x 50" in short grain.

Nekoosa Honors Reese

Nekoosa-Edwards has named its new paper machine the "Charles H. Reese," honoring the company's vice president in charge of manufacturing.

Members of the board of directors and some 50 department managers attended a testimonial to pay tribute to Mr. Reese, who has headed the company's manufacturing operations for 25 years.

Clark to New Lawson Post

John E. Clark has been advanced to the newly created post of Midwest



J. E. Clark

sales manager of the Lawson Co. division of Miehle-Goss-Dexter, Inc. He will make his headquarters at the firm's Chicago sales offices at 608 So. Dearborn St.

In his new position, Mr. Clark will be responsible for the marketing of Lawson's complete line of paper cutters, book trimmers and drilling machines in his area.

Simple Color Separation Method

A new method of making simple color separations speedily by the use of transparent acetate proofs with pressure-sensitive backing has been developed by Service Composition.

To make a separation, the artist places a sheet of the proved acetate over the flat of the black plate and cuts away the area which is to carry color with a needle or the point of a knife. He then places another acetate sheet over the first and cuts away the black areas. The same procedure is followed for as many colors as are to be separated.

The big advantage of the method, according to the company, lies in the fact that elements are cut away in creating the overlay, leaving the wanted portions in exact position, rather than laboriously tracing through the overlay sheet to add elements of color.

Further information is available from the company at 3928 Marlton Pike, Camden 5, N. J.

ATF Expands Branch Offices

American Type Founders, Elizabeth, N. J., has opened a new branch at 2911 East Franklin Ave., Minneapolis, Minnesota.

Under the management of Charles P. Hackett, formerly assistant branch manager in Chicago, the Minneapolis

branch will serve parts of Minnesota, Wisconsin, Iowa, Nebraska and the Dakotas.

The company has also expanded its Boston branch office at 273-285 Congress St. The new facilities provide almost twice as much office, warehouse and display room space.

The office, under the direction of William P. Hourihan, is responsible for all sales and service activity in northeastern New York State and New England (except lower Connecticut).

Ludlow Advances Creek

Charles V. Creek has been appointed to the position of sales manager of Brightype division of Ludlow Typograph Co., Chicago. Brightype is the company's process of converting metal type forms, line cuts, half-tones and screen veloxes, individually or in any combination, directly onto film or photographic paper.

Mr. Creek has been with the company since 1950, as a sales representative in the Indiana-Kentucky-Ohio territory.

New Package for Eleet

Ludlow Papers, a division of Ludlow Corp., Needham Heights, Mass., now packages its Eleet 8½ x 11" dot-gummed label papers in a new Tip Top carton. The carton, with its poly-laminated interior, is designed especially for small offset departments where humidity and storage conditions are not generally favorable for gummed stocks. It offers convenient protective storage and easy accessibility for short runs.

Graphic Supply Expands

Graphic Supply Company, Inc., has added 25,000 square feet of office and warehouse space to its operation in New York. This new space, coupled with its original headquarters at 22 Bond St., triples the company's overall facilities.

Designed to house the company's executive and general offices as well as functioning as a warehouse, the new facility is located at 291 Third Ave. Manufacturing operations will continue at the Bond Street location.

Alcoa Advances Turbeville

Aluminum Company of America, Pittsburgh, has appointed W. Turbe-



W. Turbeville

ville as manager of foil product sales, succeeding J. S. Hamilton, now manager of sheet and plate product sales.

Mr. Turbeville, assistant foil sales manager for the past two years, is a 1944 graduate of Vanderbilt University. A native of South Carolina, he joined the company after his graduation and worked as a metallurgist at the New Kensington (Pa.) works.

Specialized Greeting Card Press

General Research, Inc., is offering a screen process press that prints flat, single fold, french fold or otherwise folded greeting cards. In addition to printing fluorescents, metallics and colored inks, the Model 24 greeting card printer prints adhesives for glitter or flock application in spot, design or complete coverage. The manufacturer claims that only screen process can apply adhesives heavily enough for deep pile, quality flock and glitter effects, and this is the only fully automatic, hopper fed screen process press for all cards, regardless of fold.

It is a tandem press with two complete feeding, printing and delivery systems that permit handling of up to 7,000 cards per hour. Size range includes all cards from 2 x 3" through 8 x 10". The press features a vacuum cup system which feeds cards from the hopper without rubbing, face marking or color offset.

Details are available from the company at 572 Division Ave., Grand Rapids 3, Mich.

Dow Advances Collins

S. J. Collins, vice president of Louis F. Dow Co., St. Paul lithographing and advertising firm, has been advanced to the post of general sales manager by the company.

THE NEW FACE OF AMERICA

The other day . . . a Facsimile Letter a second sent from Washington to Chicago . . . and vice versa. A battery of machines in use in the Washington Main Post Office and in Chicago . . . all **BAUMFOLDERED**.

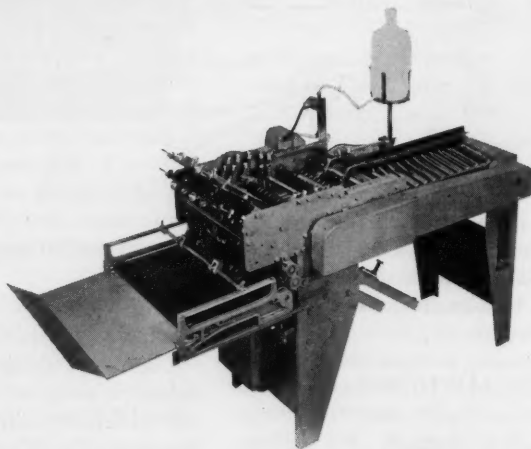
Congratulations to the engineering genius of outstanding American firms —

International Telephone & Telegraph Corporation; Bell & Howell; Stromberg-Carlson Division, General Dynamics Corporation; Haloid-Xerox; Pitney-Bowes.

The **BAUMFOLDER** has been standardized exclusively for this important development that annihilates time. We are proud to have been selected with the fine American firms who engineered the greatest advance concerning the Graphic Arts, since Gutenberg invented movable type.

As the exact facsimile of the printed page leaves the "Magic" Black Box, the **BAUMFOLDER** takes it and folds it and securely seals it . . . all under cover . . . as no eye ever sees it except the sender and the recipient of the printed or written message, viz—"Sanctity" is totally preserved. The **BAUMFOLDER**, in the single, secret operation also perforates the edges of the folded, sealed signature, for quick easy opening by the recipient.

• Forty years' pioneering . . . continuous research . . . proving it **CAN** be done . . . has resulted in **AUTOMATION** at its **POWER-PROFIT BEST**. Various single operations are performed in **ONE . . . BAUMFOLDER-style . . . opening up new fields with NEW PROFIT**. May we serve you? I would appreciate your telephoning me (collect) . . . LOcust 8-4470.



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Reservations suggested for lunch and dinner

TEmpleton 8-6490. Open daily and Sunday

Geist Retires as Warren VP

Ellsworth Geist, vice president and advertising manager of the S. D. Warren Co., Boston, retired from the company on Dec. 31.

Mr. Geist joined the company in 1928, working in the New York sales office. In 1933 he was transferred to the company's administrative offices in Boston where he assumed management and advertising duties.

He became advertising manager in 1937, was elected to the board of directors in 1948, and to the office of vice president in 1953.

K.C. Offers Paper Book

"Paper and the Graphic Arts," another booklet in its "better planning" series, has been published by Kimberly-Clark Corp., Neenah, Wis.

Designed to give the paper user understandable information on some of the technical aspects of the production and characteristics of paper, the booklet is available from the company's merchants.

Written by Dr. Walter W. Roehr, a senior research associate of the company, the booklet begins with a brief history of paper:

It discusses pulpwood and pulp preparation, fiber preparation, bleaching and mineral fillers. It takes a close look at the paper machine and the methods used to apply coatings.

Discussed in detail are papers used for rotogravure, offset lithography and letterpress printing. Dr. Roehr also discusses effects of moisture on paper, what happens when the air is too dry and other problems encountered in the storage, handling and use of paper.

Beyer Leaves Inter. Paper

O. B. Beyer, manager for the last 25 years of the International Paper Co. mill at Corinth, N. Y. Dec. 31.

Judson Hannigan, Jr., has been named to replace Mr. Beyer as manager of the mill.

Satin Shell Samples

Beckett Paper Co., Hamilton, O. is distributing swatches of two new items in its line of fine papers. These

show the Satin Shell finish applied to offset and vellum. Each swatch contains eight samples — seven pastel colors and white.

Disposable Duplicator Dampener

American Type Founders is now distributing a line of disposable dampeners for offset duplicators.

Consisting of a set of rollers, complete with cores and covers, these dampeners reportedly eliminate the bothersome and time-consuming pro-

cedure of fitting new covers onto rollers. When covers need replacement, the operator discards the complete unit set and replaces it with a new one.

Other benefits cited by the company are the elimination of roller seams, loose or twisted covers, low ends or "mourning bands" and problems of color changes.

Further information is available from ATF Dept. 74P 200 Elmora Ave., Elizabeth, N. J.

Riegel OFFSET PACKING PAPER

FOUR New Sizes Fit More Presses

Here's an automatic time-saver stocked and sold by your local paper merchant: Riegel's Offset Packing Paper. It is specially made for the job, with a toothy surface that prevents slipping or creeping under plate or blanket. Won't thin out during long runs.

FOUR CALIPERS: .002, .003, .004 and .005 "Edge-colored" for ready identification.

SIX SIZES: 19 x 23, 25¼ x 36, 28¾ x 38½, 38 x 50, 45 x 59, 54 x 77

The ultimate in speed and convenience.

Write today for **FREE TRIAL SHEETS**

Send name and model of press with sheet size and caliper wanted.

RIEGEL PAPER CORPORATION

P. O. Box 250, New York 16, N. Y.



Coast Envelope Elects Kensey

Alexander Kensey has been elected chairman of the board and treasurer, and John L. Davidson has been elected president of the Coast Envelope Co. of Los Angeles and San Francisco. Other officers include Bertram Clifford, who was re-elected vice president; and Howard La Dow, who was re-elected secretary. Robert Capps is assistant secretary.

Three new members of the board of directors are A. F. Duval, John H. Devitt, of the Hammermill Paper Co., and R. E. Baum, the present general manager of Coast Book Cover, a subsidiary of Coast Envelope.

The election of new officers follows the recent merger of the envelope company and its subsidiary with the Hammermill Paper Co.

New Kodak Films, Plates

Five new continuous-tone films, all on Estar base, and four improved plates which are counterparts of the new films, have been introduced by Eastman Kodak Co., Rochester, N. Y. Separation Negative Film, Type 1, Estar base, (.007") is specifically de-

signed for making separations from color transparencies. Production time is saved by the film's fast drying properties. Its harder, thinner emulsion reportedly dries in one-quarter the time required by former materials.

Separation Negative Film Type 2, Estar base, is designed especially for work with reflection copy and is suited for use in the camera-back masking technique, according to the company. Type 2, similar to Type 1 but of higher contrast, also is suitable for positive masking processes.

The new separation negative Type 1 and separation negative Type 2 films replace the earlier separation negative PB film.

Commercial Film (Estar Base) has the same emulsion characteristics as Kodak Commercial Film, combined with the size-holding properties of 7-mil Estar base. The special emulsion surface of the blue-sensitive film reportedly makes retouching easier, while its fast-drying properties enable it to be put in the retoucher's hands more quickly.

Kodak 33 Positive Film (Estar

Base) is the positive-making counterpart of the new commercial film. Its characteristic curves makes this film suitable for the making of positive masks, and of pre-masks for two-stage masking when a 7-mil support is desired. Blue Sensitive Masking Film (Estar Base) bears the same emulsion as 33 positive film (Estar Base), but on the thinner 4-mil support. It is designed especially for sandwich masking processes in gravure work, such as color correction, boosters, and drop-out masks.

Separation Negative Plate, Type 1 similar to Separation Negative Film, Type 1, Estar base, in speed, contrast, color sensitivity, and stability.

The new Magenta Mask Plate is designed specifically, as its name indicates, for use in the magenta masking technique.

Separation Negative Plate, Type 2, is comparable in characteristics and applications to the new Separation Negative Film, Type 2, Estar base. It will replace the Pan plate.

All the new films and improved plates are described in the Kodak brochure H3-82.

REPRO-ART	chemco	LANSTON MONOTYPE	BROWN	Sun	Princeton
Wesell	ATF			MILLER-TROIAN CO.	J. G. SALTZMAN INC.
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- Fully corrected apochromat
- Hard coated air spaced optics
- 4" to 70" focal lengths
- For all color or black and white applications

C. P. GOERZ AMERICAN OPTICAL COMPANY Inwood 96, Long Island, New York
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☐ 2 years \$7.00

☐ 1 year \$4.00

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Above rates are for U. S. and U. S. possessions ONLY.

CANADA: \$5.00 [] 1 year: \$9.00 [] 2 years (payable in Canadian or U. S. funds)

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1. Lithographing plants and employees, including private plants, combination lithographic and letterpress plants, metal decorators, lithographic trade platemakers including employees.

☐ Subscription in company name

☐ Owner, managing officer

☐ Superintendent, foreman, etc.

☐ Other employee (please specify)

☐ 2. Letterpress printing plant including employee (if you also do lithography check under No. 1 above).

☐ 3. Manufacturer, jobber, dealer in lithographic equipment or supplies including employee.

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CALDWELL, N. J.



Add Printing Course at K.C.

"Printing Technology" will be included in the vocational technical curriculum of the Junior College extension division in Kansas City.

A city-wide advisory committee helped make an occupational survey to determine needs for this level of training. Both representatives of printing companies and the various trade unions worked with the Board of Education in an advisory capacity.

Mansfield Joins ATF

American Type Founders, Elizabeth, N. J., has appointed Bryant Mansfield as sales representative, general printing equipment division. Mr. Mansfield will work out of the Chicago branch. His background includes over 10 years' experience in both the operating and management aspects of newspaper printing plants.

Winter Given Defense Award

At a dinner in Chicago, Dec. 6, Irving Winter, board chairman of the Regensteiner Corp., of that city, received from the Joint Defense Appeal a merit award for "distinguished contributions to U. S. democracy."

Install Photo-Typesetter

The first ATF photo-typesetting system to go into a commercial shop in Northern California has been installed at the David Printing Co., Alameda. The firm has recently installed a darkroom and Kenro camera.

EDITORIAL

(Continued from Page 27)

statements from our industry leaders. On the one hand, graphic arts spokesmen have issued warnings about an impending manpower shortage, while the *Thought* report seems more concerned with unemployment. "If past trends are repeated, they say, unemployment should reach a new postwar high some time during 1961 and again in 1965 (based on the experience in recent recession periods).

The treatise goes into the favorable depreciation allowances in Canada and in European countries, remarking that, "despite the urgent need for spending on plant and equipment at home, American business is being induced to spend an increasing share of investment budget in other countries."

The Hogan-Koelbe makes two final statements worth consideration:

- "Experience with automation points out that, although displacement will occur, with adequate planning no serious problem of adjustment will result."

- "The total solution will require a number of changes and adjustments, one of which is the liberalization of present depreciation allowances so that the true cost of wear and tear on capital equipment can be written off before taxes. Thus the tax system will be geared to encourage investment, which is the basic stimulant to economic activity and employment growth."

For those readers who want to peruse the full report—which is highly recommended—copies of *Thought* may be obtained from Fordham University Quarterly, 441 E. Fordham Rd., New York 58. ★

PROFIT

(Continued from Page 40)

Responsibility Accounting

In my opinion, the following twelve steps are necessary for the installation of a responsibility accounting system:

1. Definite interest and support of top management in administration, sales and production.
2. Organization Chart.
3. Job descriptions and responsibilities of supervisory and executive personnel.
4. Charts of accounts fitted to organization chart and responsibilities.
5. Development of overall company short range and long range plans to determine direction in which company is going, its goals, and how it expects to get there.
6. Preparation of sales forecasts, profit and loss and balance budgets for the next year, quarter, and month.

7. Preparation of expense budgets on departmental and responsibility basis to serve as a guidepost for actual expenditures and to conform to overall company objectives.

8. Establishment of production standards.

9. Development of adequate system for financial reporting to reflect to management the deviations either good or bad from the plan, and to show who is responsible for such deviations.

10. Adequate follow-up systems to analyze and correct deviations from profit plan.

11. Incentive system to serve as stimulant to conform with profit plan, sales incentives, production incentives, executive incentives.

12. Up-to-date cost rates for determination of product costs and profitability, and for price estimating. ★

PRINTING WEEK

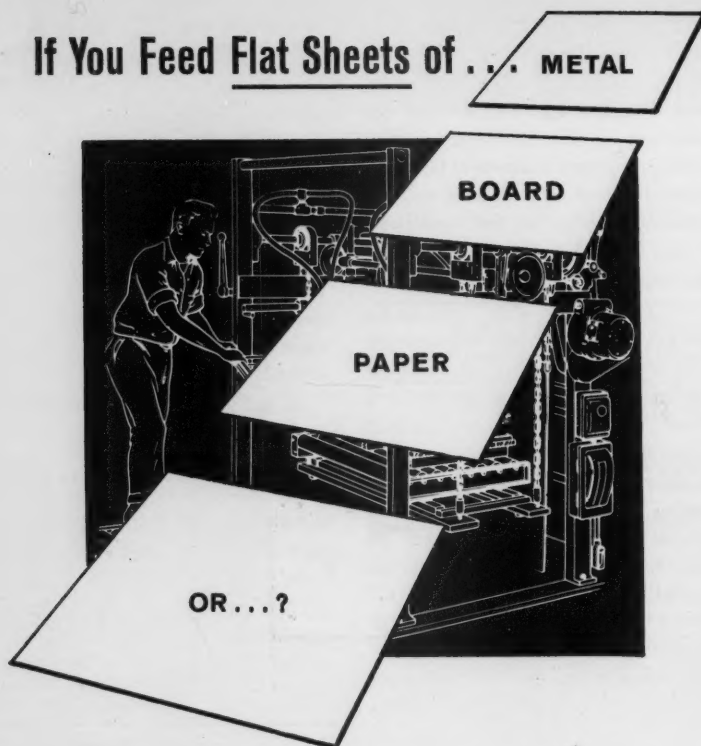
(Continued from Page 38)

invited to match their judgment of printed matter against the combined judgment of the 12-member panel of judges who selected the specimens to be placed on display. The visitor who comes closest to choosing the four specimens which the judges have designated among themselves as outstanding representative of the exhibition's theme, will be awarded the prize. The theme is "New Directions in the Graphic Arts."

Other events of Printing Week in New York will be an award dinner on Jan. 16 and informational workshops for consumers of printing on the evenings of Jan. 17, 18 and 19. All events will be held at the Commodore.

Bennett Cerf, author and humorist, has been added to the program for the Printing Week Dinner. Mr. Cerf will provide an interlude of entertainment prior to the main feature of the dinner, which is the presentation of the Franklin Award of the New York Employing Printers Association to Allen W. Dulles, director of the Central Intelligence Agency.

If You Feed Flat Sheets of . . . METAL



Increase Production Line Efficiency with

DEXTER AUTOMATIC FLAT SHEET FEEDERS

Hundreds of Dexter Flat Sheet Feeders are increasing production today in metal decorating plants, printing firms, tin plate lines, and in stamping, slitting, cutting and trimming operations.

Dexter specializes in flat sheet feeding. There's probably a feeder to fit your requirements, for Dexter Automatic Flat Sheet Feeders handle all types of materials...metal, plastic, wood, masonite, glass and numerous others. They're built in over a hundred sizes, speeds, and load capacities...sheet sizes range from 14 x 14 inches to 4 x 12 feet...thicknesses from .006 to 1/4"...capacities from 6000 to 30,000 lbs....and speeds from 600 to 9000 per hour.

Investigate how Dexter Automatic Flat Sheet Feeders may improve your production efficiency. We'll be pleased to discuss your operation at no obligation, of course.



THE DEXTER COMPANY

A DIVISION OF MIEHLE-GOSS-DEXTER, INC.
CHICAGO 8, ILLINOIS

Designers of a full line of sheet handling equipment since 1880

An acceptance address by Mr. Dulles will follow the presentation.

Baltimore

Main feature of Printing Week in Baltimore will be the Franklin Day Dinner, Jan. 20 at the Sheraton-Belvedere Hotel. An exhibit of outstanding printing and lithography will be on display. Cocktails, dinner, a tribute to Ben Franklin and dancing will complete the program.★

EDUCATION

(Continued from Page 31)

This technique gives the effect of an engraving and can be very forceful. This should be attempted only on negatives that are well suited to this treatment. In general there should be only one subject in the photograph, it should be simple, and the background should be uncluttered (silhouetting will be required in many cases). In choosing a proper subject, be sure to consider the subject in terms of light and dark contrast. Gray looking subject matter will not normally reproduce well.

It must be admitted that this process has only limited application. However, when it can be used, the effect is exceptional. Such a treatment should not be attempted if there are to be standard halftones used in conjunction with the line shot. If it is buried amid halftones it may appear out of place. There are a number of photo process companies that specialize in this type of work. Check for one in your area.

Your customer would appreciate ideas in this area if he is a frequent user of halftones.

9. *Duotone illustrations and color stock and ink may improve the appearance of the printed page.*

It has become almost axiomatic among lithographers that color enhances a job's appearance. Your customers, however, may have overlooked something which is so obvious.

Duotone illustrations provide a relatively inexpensive and attractive means of inserting color into a printed page. A prudent use of colored ink and colored stock will also im-

prove the look of the page.

Color register problems are frequently a headache but if the customer is aware of your problems in this area he can cooperate with you. Customer education in this respect will aid you as well as him.

10. The use of a "one on one" lessens reproduction costs.

In case you are unfamiliar with the term it is simply fitting illustrations onto a page of copy and then photographing both of them together. This diminishes stripping time and lessens a chance for error. The customer, when he lays it out himself, is assured that the page will be correct.

Continuous tone photographs or line drawings may be laid out on the page to be reproduced. The advantage to the customer is that he is able to provide himself with exactly what he wants. The drawback to this procedure is, of course, that the customer must have illustrations of the proper size beforehand.

Encouraging "one on one" work should improve customer relations, but be sure to explain its disadvantages as well as its advantages.

11. Use of standard size stock.

Using standard size stock is an obvious saving for the customer. Show him how to use standard stock to his best advantage. There are various methods of folding and cutting standard size stock. Teach your customer how to utilize stock size to his advantage and how to do it economically. He may be able to adopt his copy to the limitations of standard stock size. If he can he will save himself money and save you time.

You may have other suggestions, perhaps more pertinent than those listed above. If you do, offer them to your customers. The more familiar your customer becomes with the services you can offer him, the more he will utilize them. ★

PRODUCTION CLINIC

(Continued from Page 60)

to cause delay, or possibly an error, which may prove costly.

If the preparation of copy and the making of plates and negatives are

carefully executed, the colors may be run as in any litho job; namely, yellow first, red or blue second and black third or last. However, in many instances where black is run first, the succeeding colors on the illustrations must be transparent.

On the press, the black plate is the most difficult one to run. The colors generally used in the illustrations

are governed by copy or sketch, but the black must be run uniformly, and the type favored at all times. It is a mistake to run the job if the illustration is either too full or too sharp in the black plate, for the natural tendency is to correct it in running, and the type will therefore suffer.

When type is run light or gray,

GOLDENPLAST*

A new ORANGE masking plastic for layouts that

"HOLDS-TO-SIZE"

*GOLDENPLAST masking plastic — new formulated medium, replacing Goldenrod papers for those difficult "hard-to-register" jobs.

SEE THE DIFFERENCE! — Save Time — Save Money — today! Get GOLDENPLAST the orange masking plastic.

See the difference in features —

- Solves Misregister problems (in all climatic conditions)
- Available for all press sizes
- Easily cut
- Used for dropouts
- Thin base
- Available in rolls too

Special production method makes GOLDENPLAST available at these competitive low prices—

PRICE LIST

Sheet Size			Sheet Size		
All sheets cut square and packed flat at no additional charge.			Quantity		
Quantity per Package	Price		Quantity	Price	
11" x 14"	100	\$ 8.50	42" x 54"	50	\$45.00
14" x 17"	100	12.00	46" x 56"	50	55.50
16" x 20"	100	14.00	48" x 60"	50	62.00
20" x 24"	100	20.50	54" x 60"	50	65.00
20" x 27"	100	22.00	ROLLS		
24" x 27"	100	30.00	54" x 100 ft.	\$ 25.00	
24" x 30"	100	31.50	54" x 200 ft.	48.00	
27½" x 31"	100	38.50	54" x 500 ft.	112.00	
27" x 38"	100	41.00	F.O.B. N. Y., Our Plant		
30" x 40"	100	48.00	All Prices Subject to Change		
38½" x 54"	50	41.50			
40" x 50"	50	41.00			

Manufacturers to the Graphic Arts

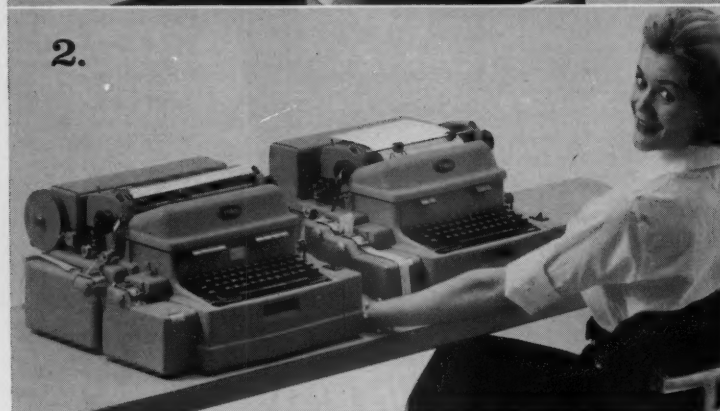


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Coldtype copysetting in two easy lessons



This is how composition looks when the operator (any office typist) first types it on the Recording Unit of the Friden Justowriter®. As she types, she produces this visual proof and a punched paper tape which contains all the letters, spaces and carriage movements in the copy--plus a special justification code that records how many spaces each line is over or under the right hand margin. Because the machine counts these justification spaces automatically, the operator is able to type this copy at her normal rate of speed.

After the first typing, everything else is automatic. The operator removes the tape from the Recording Unit, places it in the Reproducing Unit and presses a button. That's it. The Reproducer types the copy on a repro proof or direct-image plate at 100 words per minute, automatically justified and without errors. There is no faster method of setting straight matter for reproduction. And none cheaper by a long shot. Users report that the Justowriter produces best quality work, in less time, at lowest cost. Your local Friden Systems Man has full information. Or write: Friden, Inc., San Leandro, Calif.

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Copy for this ad was set in 10 point Booktype, reduced to size. Many other type faces available.



Friden

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using black ink, unevenness is sure to result because the film thickness of the ink does not permit sufficient leeway in fountain setting, and the result is light and dark sheets. Too thin a film of ink may delay drying. When a thin film of ink is run in black, the eye may be deceived as to its blackness, and an unevenness throughout the run will result. In other words, if sufficient ink is run, the heavier and lighter sheets will still appear black.

Offsetting and poor drying of ink are considered two hazards in printing books by this method. Neither offsetting nor ink drying should be a problem when certain precautions are observed.

There are two types of offsetting. If the paper is hard or smooth, offsetting may occur on the press when too much ink is run or excessive static is present in the stock. Usually this type of offsetting is more pronounced in the illustration areas when too much drier is used, and the first colors down dry too hard.

Offsetting of the type matter does not usually occur on the press, but in the smashing operation in the bindery. This can be avoided by the use of sufficient long varnish in the ink, and by not running the ink too spare. In very soft and bulky papers, sufficient pressure between blanket and impression cylinder must be maintained to insure the ink adhering to the sheet properly. There have been cases of offsetting in smashing where the slightest rub caused the ink on the loose fibres of the sheet to offset. It is an interesting fact that offset, caused by smashing, is more frequently due to the sheets rubbing against each other as they are being flattened out, and not to the pressman.

Another important factor in printing books, which the average lithographic pressman may overlook at first, is that spoilage of one sheet represents spoilage of a whole book, and spoilage must be kept to a minimum. In the usual run of lithography, a dry-up on either side of the sheet spoils only part of the sheet, but such is not the case in printing books by offset. ★

PHOTO CLINIC

(Continued from Page 60)

make these two volumes an indispensable addition to their libraries. The author's approach—first covering the theoretical viewpoint and then detailing how the theory is put into practice—will be especially appreciated. The many references to original papers and patents provides additional data of both practical and historical value.

Screen Compensator

Q: I have a disk-type screen compensator behind my camera lens. With some screens I can get line and halftone combinations in perfect register. With other screens there is a 1/16" or more difference between the line and halftone images. Can you explain why?

G. K., SUMMIT, N. J.

A: In order for a screen compensator to produce a line image of the same size as a halftone made through a glass screen, the compensator must have the same refractive index as the screen glass, and the same thickness.

The following is a list of the thickness of a number of screens in use in a photoengraving plant in New York. As can be seen, there is considerable difference in thickness between the thickest and thinnest screens. This shop has an assortment of compensators in order to get the best possible match for the screen in use.

100	215
100	250
100	255
110	223
110	232
110	319
120	222
120	245
120	358
133	223
133	250
133	265

It would seem that your problem is due to a difference in the screens you use. Measure your screens and if there is a difference in thickness get yourself compensating disks to match.★

Patterson Named to K. C. PIA

James Lyle Patterson II has been named assistant manager of Printing Industries Association of Kansas City. He will relieve Burdette Yeo, the executive secretary, of much of the office routine work, so Mr. Yeo can concentrate to a greater extent on planning and consultation.

Mr. Patterson, a 1958 graduate of Pittsburg Kansas State College, has a Bachelor of Science degree in printing. He was a lieutenant in the army until Nov. 9, and his last assignment was officer-in-charge of the printing plant at Ft. Leonard Wood.

Intertype Moves in S.F.

The Intertype division of Harris-Intertype Corp. has moved its western district office from 500 Sansome St. to 885 Bryant St., San Francisco, consolidating its sales and service facilities with those of the Harris-Seybold division.

Elect Hartley President

Blair Hartley has been elected the president of the South Florida Litho Club. Other officers elected were: B. Jordan, vice president, Ann O'Brien, secretary and Joseph Juske, treasurer.

Rutherford Installations

The following firms have recently installed Rutherford Machinery Co. equipment:

Western Printing and Lithographing Co., Poughkeepsie, N. Y.,—58" x 78" semi-automatic photo-composing machine.

Universal Printing Co., St. Louis, Mo.,—type PLD, 58" x 78" semi-automatic, photo-composing machine.

A. D. Steinbach and Sons, Inc., New Haven, Conn., 58" x 78", semi-automatic, photo-composing machine.

Greylock Photo-Engraving Co., North Adams, Mass.,—33" x 42", semi-automatic, photo-composing machine.

Simmons-Woodward, Inc., St. Louis, Mo., 58" x 78", semi-automatic, photo-composing machine.

Fleming-Ptter Co., Peoria, Ill.,—48" x 59", semi-automatic, photo-composing machine.

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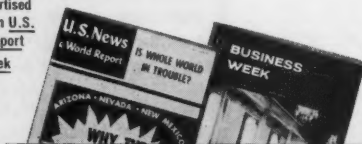
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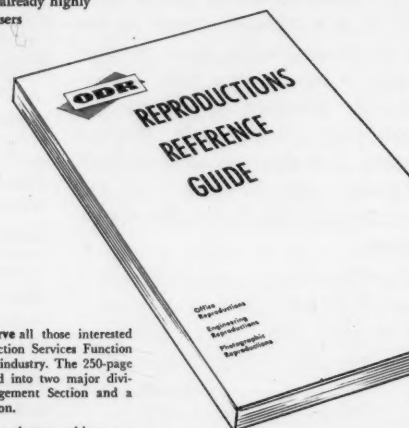
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TECHNICAL BRIEFS

(Continued from Page 57)

cleaners. Newer web-offset presses are described briefly.

Graphic Arts—General

PHOTOTYPESETTING—BIG BOON TO BUSINESS FORM FIELD. Kurt Franck. *New England Printer and Lithographer* 23, No. 5, June 1960, p. 53 (1 page). Description of how a business forms printer uses photocomposition by the Fotosetter in his work. Method is to rule or inscribe on a negative. A step-by-step description tells the whole procedure.

LETTERPRESS IS HERE TO STAY. Joseph Chanko. *The American Pressman* 70, No. 4, April 1960, pp. 10, 12, 14, 15, 16, 20 (6 pages). (From a talk before the 9th Annual Conference of the Research and Engineering Council of the Graphic Arts Industry.) Author's theme is that all three major printing processes "are here to stay," including letterpress. The advantages of letterpress are given as follows: (1) It has a wide range of use; (2) availability; (3) flexibility; (4) quality; (5) economy; (6) magazine and long run commercial work; (7) general. Past progress is covered under 22 points covering, among other points, inks, rollers, papers, photoengraving, electrotyping, press improvement.

RUBBER PLATES FOR LITHO PRESS. Anon. *Boxboard Containers* 78, No. 805, January 1960, pp. 33-34 (2 pages). A lithographer found that he could not lay enough fluorescent ink for a background printing using normal offset lithographic techniques. Instead, he: (1) Removed blanket and mounted rubber relief plates on that cylinder, either direct on the cylinder or, later, on a carrier plate clamped in the blanket clamps. Sticky back was used. (2) A blank plate placed on the plate cylinder converted that cylinder into an oversized inking cylinder. (3) The water fountain was disconnected. This arrangement gave adequate coverage in one printing, adequate plate life for 500,000 runs and easy reconversion of the press for lithographic printing.

HOW ONE CONSTRUCTS THE WORLD GRAPHICALLY. Loïc Cahierre. *La France Graphique* 160, April 1960, pp. 4-22 (19 pages) (in French). Fifteen illustrations from ancient maps to modern aerial surveys, ground control and cartographic methods.

PRINTING SALES UP 30% IN FOUR YEARS. Glenn C. Compton. *Printing Magazine* 84, No. 4, April 1960, pp. 85, 106 (2 pages). Figures given are preliminary reports of the 1958 U. S. Census of Manufactures. Printing and publishing gained 21.6% (1954-1958, value added by manufacture), compared to 21.3% for all manufacturing industries. Other figures for the period: Commercial printing gained 25.8%, lithography gained 44.4% to reach \$1,442,727,000 in dollar volume. In 1958 printing and publishing was third in number of establish-

ments, eighth in value added by manufacture and ninth in number of employees. Other figures are given. An additional fact which is very interesting was given in an editorial on page 67 of the same issue: "In 1958, when 2,800 offset presses were sold, 90.4% of them went into plants that had letterpress equipment."

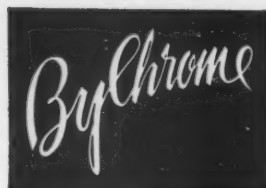
***A WEB VIEWER FOR HIGH-SPEED PRINTING PRESSES.** Anon. *Paper Packs*, October 1959, pp. 34-35; *Printing Abstracts*, Vol. 15, No. 1, January 1960, p. 28. The Barr and Stroud Web Viewer, Type 2K.1, presents a section of the web reflected in a mirror system. This mirror system moves during web travel so that the image of the web appears stationary. Details of the operation and installation of this web viewer on rotary machines are given.

FARRINGTON OPTICAL SCANNER READS TYPEWRITTEN COPY AND PUNCHES COMMON LANGUAGE TAPE. Anon. *The American Pressman* 70, No. 5, May 1960, pp. 38-39 (2 pages). This is a mechanical reading machine or "character recognition device" capable of reading typewritten copy, caps and lower case, punctuation and numbers at 240 characters per minute and translating this into punched tape form. The machine involves three basic components: Scanner, computer and tape puncher. The function of each and how they work is explained. Five illustrations and a table.

SELECTING DRIVES FOR YOUR NEW OFFSET PRESSES. G. H. Brandt. *Printing Production* 90, No. 4, January 1960, pp. 48-49 (2 pages). The drive system on an offset press is the key to its production and performance. The author reviews the features of the two most popular systems used at this time. The first, or Wound Rotor A.C. Drive motor, is simple, rugged, requires little servicing and is the least expensive initial investment where A.C. power is available. The second system, or variable voltage D.C. drive, while not new, is gaining in recent years, and is almost without exception standard equipment on five and six color lithographic presses. This variable voltage D.C. drive system gives a greater speed range and infinitely variable speed increments, with more efficient operation and use of power. The servicing requirements of these units are generally less than for the Wound Rotor A.C. Drive systems, especially if they are of modern design. The small press owner must decide between low first cost of the first system as against the various long-run savings possible with the second one.

MUSICWRITER USED TO TYPE MUSICAL SYMBOLS. Anon. *Inland and American Printer and Lithographer* 145, No. 1, April 1960, p. 86 (1 page). Description of a new kind of typewriter which types musical symbols (except slurs). Copy can be prepared for photographing for printing plates, or for various forms of duplicating. One illustration.

LATEST DEVELOPMENTS IN THE COMPOSING ROOM. Alexander Lawson. *Share Your Knowledge Review*, Vol. XLI, No. 6, March 1960, pp. 14-17 (4 pages). By limiting himself to a quick survey of developments of



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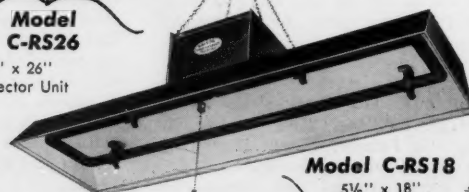
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last 14 years, he points out that he is limited to typesetting machines and mostly phototypesetting. The position of phototypesetting is given as "here to stay" and "will inevitably increase." Phototypesetting equipment described includes: Fotosetter, Monophoto, ATF-Hadego, Photon, ATF Typesetter, Alphatype and Linofilm. Each is described briefly, its present status given, and some comment made on capabilities. In new hot metal machines, the Monomatic and the RCA Electro-Typesetter are discussed.

HOW TO DETERMINE IF PHOTOCOMPOSITION AND OTHER PROCESSES BELONG IN YOUR PLANT. Collier Elliott and Paul Doebler. *Printing Production* 90, No. 7, April 1960, pp. 35, 36, 37, 91, 92, 93 (6 pages). The problem of decision on whether or not to use a new process, such as photocomposition, is one of determining comparative costs. Methods for evaluating costs exist in the form of methods engineering. The hot vs. cold composition comparison is complicated by the auxiliary operations they affect. The individual problem of each plant must be determined by: (1) Productivity of operations. (2) Mixture of advertising styles. (3) Size of work load. (4) Cost of materials. Methods for analysis are presented. Some conclusions covering the four points are given based on a study of 30 newspaper operations. One table of comparisons.

BANK CHECK PRINTING A THRIVING SPECIALTY. H. F. Reves. *Printing Magazine* 84, No. 7, July 1960, pp. 46-7-8 (3 pages). A story on an Atlanta (Ga.) printer who had moved from general printing to bank check and similar specialty work. In a move into the present plant in 1956, plant planning and layout were built around the specialty. Both offset and letterpress are used. The equipment and operations are described in some detail. Magnetic ink check printing is the newest phase of the work. Five illustrations.

PRINTING QUALITY AUDITS ARE EASY— A Definition of Statistical Quality Control and a Few Suggestions on How Printing Craftsmen Can Use It. Donald Macaulay. *The American Pressman* 70, No. 3, March 1960, pp. 34-5-6-7-8 (5 pages). Statistical Quality Control is described briefly as a Scientific Technique for determining and

controlling sources of production errors. The process is broken down into four steps: (1) Descriptive Statistics; (2) Probability; (3) Statistical Inference; (4) Quality or Process Controls. Each is illustrated and explained, and the control chart method of quality control illustrated and explained as applied to printing. Six illustrations and charts.

PROOFREADING FOR OFFSET HAS SPECIAL PROBLEMS. Burton Lasky. *Inland and American Printer and Lithographer* 145, No. 1, April 1960, p. 77 (1 page). Differences occur even when copy is set by Linotype or other hot metal method as the camera picks up type imperfections that can be eliminated on the press in letterpress printing. Handling corrections on the one original coming from typewriter composition means correction marks should be on an overlay sheet. Many other tips are given applying specifically to the type of material supplied for offset reproduction. One illustration. ★

TECHNICAL SECTION

(Continued from Page 49)

familiar with instrumental measurements of color, this difference is about the same as between a dark and medium chrome green. It will be more significant to a practical ink-maker or printer to know that it requires about 7 per cent of Benzidine Yellow to shade Heliogen Green over to the yellowness (but not the brightness) of Heliogen Viridine.

This reminds us that Heliogen Viridine is brighter than phthalocyanine green. Previous efforts to make only minor increases in the yellowness of phthalocyanine green usually gave a duller pigment.

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Heliogen Viridine gives a much softer ink than Heliogen Green so it may appear to give a much less intense print. If the inks are formulated to have similar bodies, a draw-down of Heliogen Viridine shows a much yellower and noticeably brighter print than Heliogen Green and essentially equal intensity.

The lesson this emphasizes is that Heliogen Viridine is different chemically and physically from Heliogen Green and formulations may have to be altered to obtain optimum strength with Heliogen Viridine. The formulation giving maximum strength will also enhance the brightness of the pigment. ★

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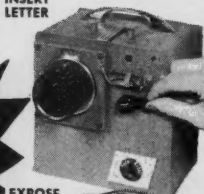
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Ilford Issues Booklet

Ilford Inc. has announced a new booklet, "Ilford Film Development Tables," listing development times and recommended speed settings for its developers and more than 17 other developers for use with its roll, miniature and sheet film. Cost is 50 cents a copy at authorized dealers.

Beasley Opens Plate Service

A new firm specializing in lithographic plates and color separations for the trade has been established in San Francisco under the name Beasley Litho Color Plate Service. Principals are Elmer Beasley, specialist in three-color work, and Kenneth Elliott. The studio, located at 110 First Street, is equipped with a Brown 31" camera and ColorTran double-bank lights, an Anderson step-and-repeat machine, a Nu Arc Flip-Top platemaker, Brown plastic sinks, and a locally designed automatic filter changing device.

Gane Elects Jecklin Chairman

Gane Bros. & Lane, Inc. and Gane Bros. of New York, Inc. have elected Arthur C. Jecklin, Sr., chairman of the board and Daniel G. Church,

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president of both firms. Mr. Church moves into the vacancy created by Mr. Jecklin's election as board chairman. Mr. Jecklin has spent 56 years with the firm, and Mr. Church, 53 years.

Gane Bros. & Lane, Inc. also announced the election of Mr. F. G. Leeder to the board of directors. Mr. Leeder is sales manager of the firm.

Simplified Supply Catalog

A new easy-to-use, departmentalized catalog of graphic arts supplies and equipment has been published by Roberts & Porter, Inc., New York. In addition to a detailed index, the new catalog features tab-dividers separating five categories: general supplies; chemicals; film, dry plates, photo-papers; presensitized plates; equipment.

The 128 pages are illustrated and contain, along with prices, much helpful data. The new catalog can be obtained free at any of the twelve company branches.

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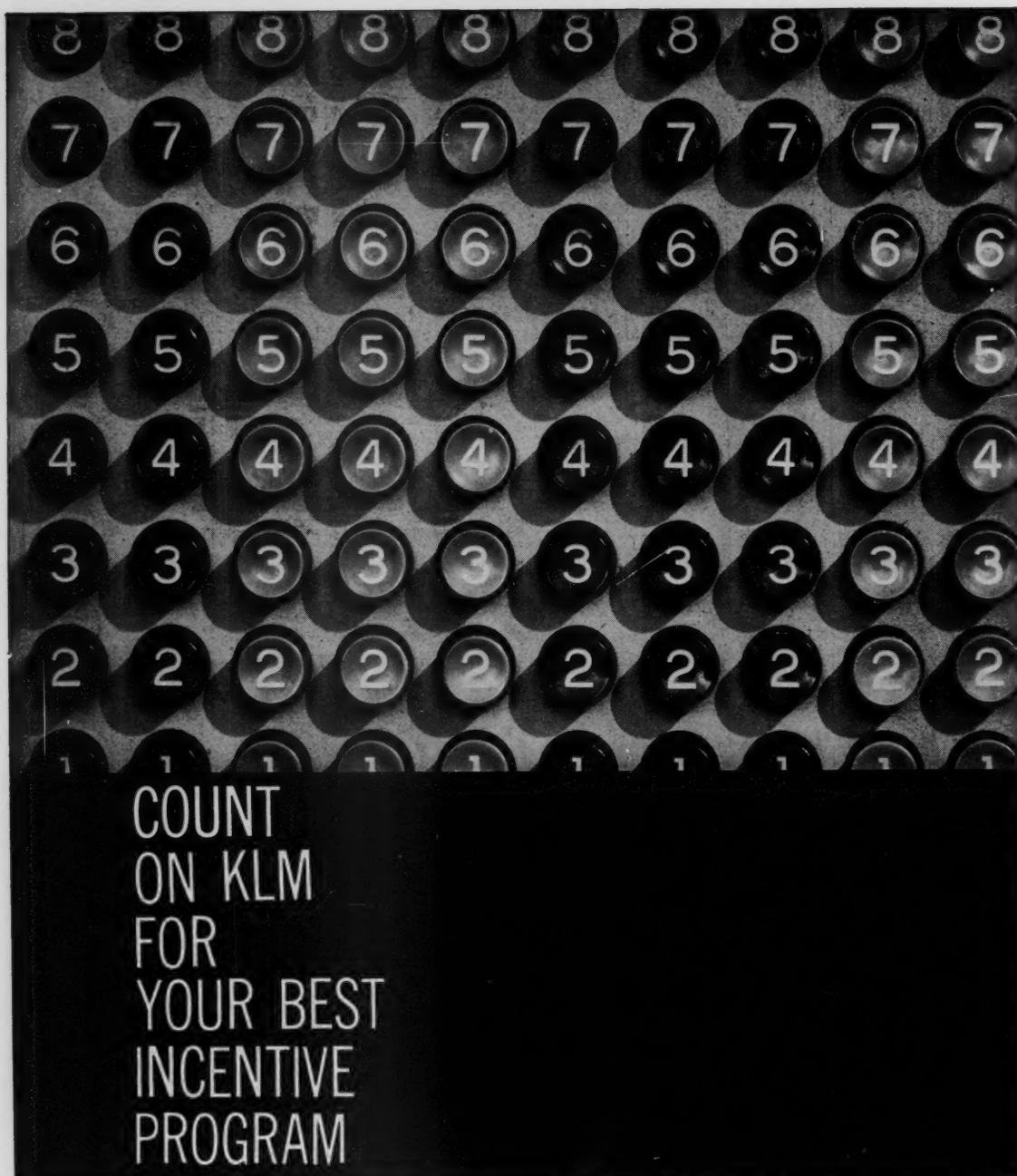
A new ink fountain agitator for the ATF Chief 15, Davidson, A. B. Dick, Multilith, Photostat, and other small presses has been introduced by Baldwin-Gegenheimer Corp., Brooklyn.

The new agitator, known as the Style S, was developed specifically to help printers meet the exacting quality requirements of magnetic ink encoding, much of which is done on small sheet-fed offset duplicating machines.

Oxford Advances Lewis

Oxford Paper Co., New York, has appointed C. Rickert Lewis as direct sales manager to succeed Chester N. Stupp, who is assuming the duties of mill manager of the company's Miami mill at West Carrollton, O.

Mr. Lewis joined the company in 1946 as a sales trainee. He subsequently became a member of the eastern regional sales organization. In 1958 he was appointed Northeast sales manager.



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TALE ENDS

THE Lithographic Technical Foundation, which has been quite active under the leadership of Bill Webber, received two nice Christmas presents to make its year happier. The first was a contribution of \$92 from the St. Louis Litho Club, which, despite its relatively small size, has been in the forefront of litho clubs making contributions to the Foundation.

The second Yuletide "present" was the one thousandth member company of the LTF. At presstime it was not possible to determine which of several companies would be officially listed as No. 1,000, but Mr. Webber was confident the mark would be reached by Christmas. The Foundation has been averaging 10 new members a month for quite a while now.

Coinciding with the Foundation's growth was a move by the executive committee (Dec. 5) to expand both the research and educational programs of the LTF for 1961. The laboratory personnel will be increased by 25 percent, and a comparable expansion is planned for the activities of the educational department. Looks like a good year for research.

Our industry lost another of its oldtimers late in 1960 when Otto A. Kling died in Cincinnati. Mr. Kling was the retired president of the Progress Lithographing Co., of Amberley Village. He was 93 at the time of his death and had been engaged in the lithographing industry for 60 years.

Mr. Kling was a member of one of the Westwood section's oldest families, and his family presented the street on which they lived—Kling Ave.—to the city some years ago.

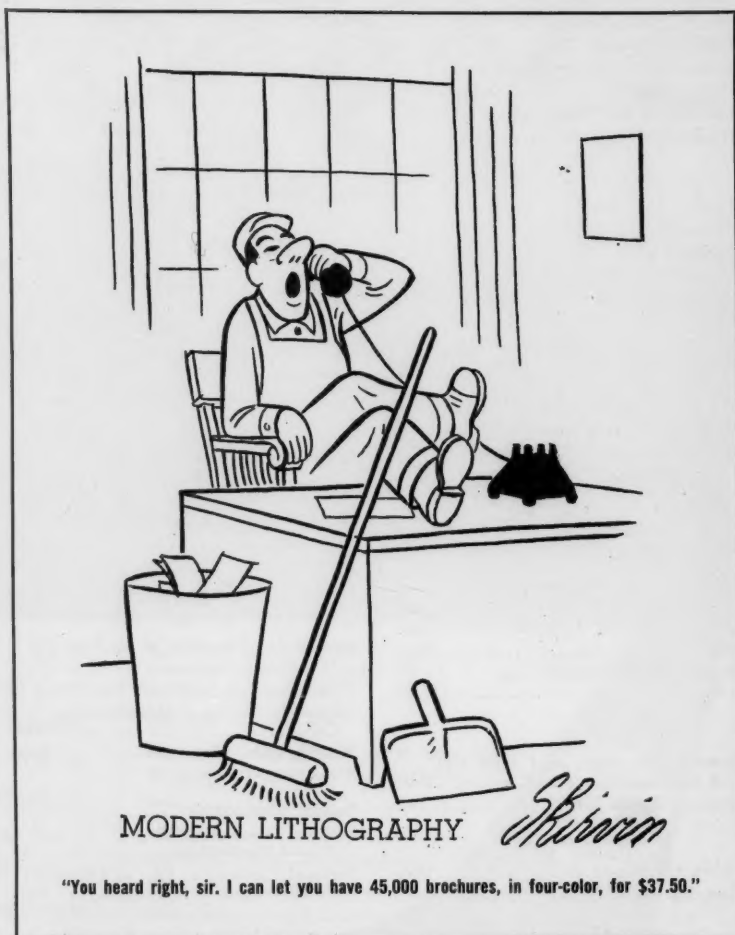
A really outstanding safety record—more than 10 million man-hours without a single time-losing injury on the job—has been compiled by DuPont's Photo

Products Research Laboratory at Parlin, N. J. The company reported last month that over the past 25 years the laboratory employes have handled such potential hazards as flammable liquids, acids and fumes, frequently in dark work areas, amassing a total of 10,500,000 safe man-hours.

The last major injury, resulting from the use of old-fashioned highly flammable photographic film, occurred on Nov. 23, 1935, according to Dr. William A. Stanton, laboratory director. Dr. Stanton praised the safety-consciousness of DuPont employes and added that the present laboratory building, opened in 1950 and expanded several times, "has contributed to the record by providing a safer place to conduct research activities."

Purists and mathematicians welcomed a new decade on New Year's Eve. The rest of us had already celebrated a year ago. These hair-splitters pointed out that while the sixties started a year ago, the new decade did not arrive until Jan. 1, 1961, because time is numbered from the year 1, not zero. This fine point doesn't make a whole lot of difference to lithographers, who view the new year with optimism, aware all the while that it will doubtless be filled with its regular quota of labor troubles, price cutting and hickies!

Although the new season of industry meetings is still a few months off, the National Association of Litho Clubs will get a jump on things Jan. 28 with its mid-year meeting, again to be held in three concurrent sessions. Sites for the regional meetings this month will be Philadelphia, Ann Arbor and Kansas City.★



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